

Melatonin and Health Benefits

This article is separated into 5 sections, each of which can be individually downloaded. It is a 'work in progress' incorporating new information whenever time permits.

Section 5 References

1. Introduction; Age-related biological changes and increased life span; Alcohol-induced damage; asthma; autism; behaviour; bladder; blood-brain barrier; blood flow; blood pressure; brain damage; burns; cancer; cardiovascular support; Central Nervous System (CNS) injuries and diseases; chemical; dementia
2. Depression, bipolar disorder and mood control; diabetes, diabetic retinopathy; DNA damage; drug dependency; drug interaction; eye problems; fibromyalgia; headaches; head injury; height; immune system effects; infertility; inflammatory conditions; Irritable Bowel Syndrome (IBS) and other gastric problems; kidneys; learning and memory; light at night; light pollution; liver damage; lung injury; malaria; menopause; metabolic disorders; mitochondrial dysfunction; mouth diseases; nerve damage; neurocognitive functions; Neurodegenerative diseases, such as Huntington's disease; neurodevelopmental disorders; nitric oxide interaction; obesity
3. Operation trauma; ovarian disease; pain relief; pancreatitis; Parkinson's disease; plants; pregnancy and reproduction; radiation side effects; schizophrenia; sciatic nerve injury; scoliosis; skin effects; sleep, sleep apnoea; spinal cord injury; stress; stroke; testicular protection; thyroid; toxin protection; treatment side effect reduction; vaccinations; ventilator-induced lung injury; Wi-Fi
4. Melatonin suppressors: Alcohol; age; baby crying; cancer; chemicals; diet; weight; electromagnetic fields (EMFs), powerfrequency radiation; occupational radar exposure; radiofrequency radiation; light; light at night (LAN); light wavelength, smartphone; fracture risk;
5. References – 467 references

5. Melatonin references

- Acuña-Castroviejo D** et al 2014 – *Extrapineal melatonin: sources, regulation, and potential functions* Cell Mol Life Sci 71(16):2997-3025 PMID: 24554058
- Agil A** et al 2013 - *Melatonin ameliorates low-grade inflammation and oxidative stress in young Zucker diabetic fatty rats* J Pineal Res 54(4):381-8 PMID: 23020082
- Ahmad A** et al 2010 - *Synergistic Effect of Selenium and Melatonin on Neuroprotection in Cerebral Ischemia in Rats* Biol Trace Elem Res 139(1):81-96 PMID: 20358308
- Akbulut KG** et al 2008 - *Exogenous melatonin decreases age-induced lipid peroxidation in the brain* Brain Res 1238:31-35 PMID: 18755164
- Akpınar Z** et al 2008 - *The association of nocturnal serum melatonin levels with major depression in patients with acute multiple sclerosis* Psychiatry Res 161(2):253-7 PMID: 18848732
- Aktas C** et al 2012 - *Melatonin attenuates oxidative stress, liver damage and hepatocyte apoptosis after bile-duct ligation in rats* Toxicol Ind Health 30(9):835-44 PMID: 23095487
- Aladag MA** et al 2009 - *Melatonin ameliorates cerebral vasospasm after experimental subarachnoidal haemorrhage correcting imbalance of nitric oxide levels in rats* Neurochem Res 34(11):1935-44 PMID: 19415488
- Albreiki MS** et al 2017 – *A single night light exposure acutely alters hormonal and metabolic responses in health participants* Endocr Connect 6(2):100-110 PMID: 28270559
- Ali T & MO Kim** 2015 – *Melatonin ameliorates amyloid beta-induced memory deficits, tau hyperphosphorylation and neurodegeneration via PI3/Akt/GSk3beta pathway in the mouse hippocampus* J Pineal Res 59(1):47-59 PMID: 25858697
- Al-Malki AL** 2012 - *Synergistic effect of lycopene and Melatonin against the genesis of oxidative stress induced by cyclophosphamide in rats* Toxicol Ind Health 30(6):570-575 PMID: 23024110
- Almughrabi OM** et al 2013 - *Melatonin levels in periodontal health and disease* J Periodontal Res 48(3):315-21 PMID: 23033974
- Alonso-Gonzalez C** et al 2008 - *Melatonin modulates the cadmium-induced expression of MT-2 and MT-1 metallothioneins in three lines of human tumor cells (MCF-7, MDA-MB-231 and HeLa)* Toxicol Lett 181(3):190-195 PMID: 18755257
- Ambriz-Tututi M** et al 2009 - *Melatonin: A hormone that modulates pain* Life Sci 84(15-16):489-98 PMID: 19223003
- Anisimov VN** et al 2012 - *Light-at-Night-Induced Circadian Disruption, Cancer, and Aging* Curr Aging Sci 5(3):170-7 PMID: 23237593
- Anisimov V** et al 2003 - *Dose-dependent effect of melatonin on life span and spontaneous tumor incidence in female SHR mice* Exp Gerontol 38(4):449-61 PMID 12670632
- Appleton R** et al 2012 - *The use of MELatonin in children with Neurodevelopmental Disorders and impaired Sleep: a randomised, double-blind, placebo-controlled, parallel study (MENDS)* Health Technol Assess 16(40):1-239 PMID: 23098680
- Aranda M** et al 2010 - *In vivo hepatic oxidative stress because of carbon tetrachloride toxicity: protection by melatonin and pinoline* J Pineal Res 49(1):78-85 PMID: 20524971
- Archer SN** et al 2014 – *Mistimed sleep disrupts circadian regulation of the human transcriptome* Proc Natl Acad Sci U S A 111(6):E682-91 PMID: 24449876
- Arushanian EB** et al 2012 - *[Complex estimation of the psychotropic activity spectrum of pineal hormone melatonin in young healthy humans]* Eksp Klin Farmakol 75(10):8-11 PMID: 23240152
- Arushanian E & E Beier** 2002 - *Immunotropic properties of pineal melatonin* Eksp Klin Farmakol 65 (5): 73 – 80 PMID: 12596522
- Ashkenazy T** et al 2009 - *Effects of bright light treatment on depression-and anxiety-like behaviors of diurnal rodents maintained on a short daylight schedule* Behav Brain Res 201(2):343-6 PMID: 19428655

- Awad H** et al 2006 - *Melatonin profile in infertile males* Int J Androl 29(3):409-13 PMID: 16371109
- Ayata A** et al 2004 - *Oxidative stress-mediated skin damage in an experimental mobile phone model can be prevented by melatonin* J Dermatol 31(11):878-83 PMID: 15729859
- Aynali G** et al 2013 - *Modulation of wireless (2.45 GHz)-induced oxidative toxicity in laryngotracheal mucosa of rat by melatonin* Eur Arch Otorhinolaryngol 270(5):1695-700 PMID: 23479077
- Badr F M** et al 1999 - *Radioprotective effect of melatonin assessed by measuring chromosomal damage in mitotic and meiotic cells* Mutation Research 444: 367-372 PMID: 10521676
- Bartsch H** et al 2012 - *Longitudinal Melatonin Production in Female Laboratory Rats from 1997 to 2006: Possible Modulatory Effects of Changing Solar Activity* Curr Aging Sci 5(3):186-94 PMID: 23237595
- Bassani TB** et al 2014 - *neuroprotective and antidepressant-like effects of melatonin in a rotenone-induced Parkinson's disease model in rats* Brain Res 1593:95-105 PMID: 25301688
- Baykan A** et al 2008 - *The protective effect of melatonin on nicotine-induced myocardial injury in newborn rats whose mothers received nicotine* Anadolu Kardiyol Derg 8(4):243-8 PMID: 18676298
- Bejarano I** et al 2009 - *Melatonin induces mitochondrial-mediated apoptosis in human myeloid HL-60 cells* J Pineal Res 46(4):392-400 PMID: 19552762
- Bekyarova G** et al 2012 - *Melatonin protection against burn-induced hepatic injury by down-regulation of nuclear factor kappa B activation* Int J Immunopathol Pharmacol 25(3):591-596 PMID: 23058009
- Bekyarova G** et al 2009 - *Protective effect of melatonin against oxidative hepatic injury after experimental thermal trauma* Methods Find Exp Clin Pharmacol 31(1):11-14 PMID: 19357793
- Belforte NA** et al 2010 - *Melatonin: a novel neuroprotectant for the treatment of glaucoma* J Pineal Res 48(4):353-64 PMID: 20374442
- Bendz LM & AC Scates** 2010 - *Melatonin Treatment for Insomnia in Pediatric Patients with Attention-Deficit/Hyperactivity Disorder (January)* Ann Pharmacother 44(1):185-91 PMID: 20028959
- Benitez-King G** et al 2009 - *Melatonin modulates microfilament phenotypes in epithelial cells: implications for adhesion and inhibition of cancer cell migration* Histol Histopathol 24(6):789-99 PMID: 19337976
- Ben-Moshe Livne Z** et al 2016 - *Genetically blocking the Zebrafish Pineal Clock affects Circadian Behavior* PLoS One Genet 12(11):e1006445 PMID: 27870848
- Berra B & AM Rizzo** 2009 - *Melatonin: circadian rhythm regulator, chronobiotic, antioxidant and beyond* Clin Dermatol 27(2):202-9 PMID: 19168001
- Bertrand PP** et al 2010 - *Simultaneous measurement of serotonin and melatonin from the intestine of old mice: the effects of daily melatonin supplementation* J Pineal Res 49(1):23-34 PMID: 20374441
- Bertuglia S & Reiter RJ** 2009 - *Melatonin reduces microvascular damage and insulin resistance in hamsters due to chronic intermittent hypoxia* J Pineal Res 46(3):307-13 PMID: 19317794
- Bhatti P** et al 2012 - *Invited Commentary: Shift Work and Cancer* Am J Epidemiol 176(9):760-3 PMID: 23035018
- Bicer M** et al 2012 - *Protective effect of melatonin on lipid peroxidation in various tissues of diabetic rats subjected to an acute swimming exercise* Bratisl Lek Listy 113(12):698-701 PMID: 23173626
- Blackman CF** et al 2001 - *The influence of 1.2 microT, 60 Hz magnetic fields on melatonin- and tamoxifen-induced inhibition of MCF-7 cell growth* Bioelectromagnetics 22(2): 122-8 PMID: 11180258
- Blasiak J** et al 2016 - *Melatonin in retinal physiology and pathology: The case of age-related macular degeneration* Oxid Med Cell Longev 2016:6819736 PMID: 27688828
- Blask DE** 2009 - *Melatonin, sleep disturbance and cancer risk* Sleep Med Rev 13(4):257-64 PMID: 19095474
- Blask DE** et al 2005 - *Melatonin-depleted blood from premenopausal women exposed to light at night stimulates growth of human breast cancer xenografts in nude rats* Cancer Res 65(23): 11174-84 PMID: 16322268
- Borazan H** et al 2010 - *Effects of preoperative oral melatonin medication on postoperative analgesia, sleep quality, and sedation in patients undergoing elective prostatectomy: a randomized clinical trial* J Anesth 24(2):155-60 PMID: 20186437

- Braam W** et al 2010 - *Melatonin decreases daytime challenging behaviour in persons with intellectual disability and chronic insomnia* J Intellect Disabil Res 54(1):52-9 PMID: 19888921
- Brainard GC** et al 2001 - *Action spectrum for melatonin regulation in humans: evidence for a novel circadian photoreceptor* J Neurosci 21(16):6405-12 PMID: 11487664
- Bubenik GA** 2008 - *Thirty four years since the discovery of gastrointestinal melatonin* J Physiol Pharmacol 59 Suppl 2:33-51 PMID: 18812627
- Bumb JM** et al 2014 - *Pineal gland volume in primary insomnia and healthy controls: a magnetic resonance imaging study* J Sleep Res 23(3):274-80 PMID: 24456088
- Burch JB** et al 2008 - *Geomagnetic activity and human melatonin metabolite excretion* Neurosci Lett 438(1):76-9 PMID: 18472329
- Burch JB** et al 2002 - *Melatonin metabolite excretion among cellular telephone users* Int J Radiat Biol 78(11):1029-36 PMID: 12456290
- Burch JB** et al 2000 - *Melatonin metabolite levels in workers exposed to 60Hz magnetic fields; work in substations and with 3 phase conductors* J Occup Environ Med. 2000 Feb;42(2):136-42 PMID: 10693073
- Burch JB** et al 1999 - *Geomagnetic disturbances are associated with reduced nocturnal excretion of a melatonin metabolite in humans* Neurosci Lett 266(3):209-12 PMID: 10465710
- Burch JB** et al 1999 - *Reduced excretion of a melatonin metabolite in workers exposed to 60 Hz magnetic fields* Am J Epidemiol 150(1):27-36 PMID: 10400550
- Burch JB** et al 1998 - *Nocturnal excretion of a urinary melatonin metabolite among electric utility workers* Scand J Work Environ Health 24(3):183-9 PMID: 9710370
- Burgess HJ & LF Fogg** 2008 - *Individual differences in the amount and timing of salivary melatonin secretion* PLoS ONE 3(8):e3055 PMID: 18725972
- Caballero B** et al 2009 - *Melatonin alters cell death processes in response to age-related oxidative stress in the brain of senescence-accelerated mice* J Pineal Res 46(1):106-14 PMID: 19090913
- Caballero B** et al 2008 - *Favorable effects of a prolonged treatment with melatonin on the level of oxidative damage and neurodegeneration in senescence-accelerated mice* J Pineal Res 45(3):302-11 PMID: 18410310
- Campino C** et al 2008 - *Melatonin reduces cortisol response to ACTH in humans* Rev Med Chil 136(11):1390-7 PMID: 19301769
- Cano P** et al 2009 - *Effect of a high-fat diet on 24-h pattern of circulating levels of prolactin, luteinizing hormone, testosterone, corticosterone, thyroid-stimulating hormone and glucose, and pineal melatonin content, in rats* Endocrine 17(10):1866-71 PMID: 19543212
- Cardinali DP** et al 2008 - *Melatonin and the immune system in aging* Neuroimmunomodulation 15(4-6):272-8 PMID: 19047804
- Carrillo-Vico A** et al 2013 - *Melatonin: buffering the immune system* Int J Mol Sci 14(4):8638-83 PMID: 23609496
- Carrillo-Vico A** 2005 - *A review of the multiple actions of melatonin on the immune system* Endocrine 27 (2): 189 - 200 PMID: 16217132
- Cernysiov V** et al 2009 - *Regulation of T-cell-independent and T-cell-dependent antibody production by circadian rhythm and melatonin* Int Immunol 22(1):25-34 PMID: 19946015
- Chellappa SL** et al 2012 - *Human melatonin and alerting response to blue-enriched light depend on a polymorphism in the clock gene PER3* J Clin Endocrinol Metab 97(3):E433-7 PMID: 22188742
- Chen Q** et al 2009 - *Exogenously applied melatonin stimulates root growth and raises endogenous indoleacetic acid in roots of etiolated seedlings of Brassica juncea* J Plant Physiol 166(3):324-8 PMID: 18706737
- Chen X** et al 2016 - *Melatonin inhibits tumorigenicity of glioblastoma stem-like cells via the AKT-EZH2-STAT3 signaling axis* J Pineal Res 61(2):208-17 PMID: 27121240
- Cheng Y** et al 2006 - *Beneficial effects of melatonin in experimental models of Alzheimer disease* Acta Pharmacol Sin 27(2):129-139 PMID: 16412260

- Chojnacki C** et al 2013 - *Melatonin secretion and metabolism in patients with hepatic encephalopathy* J Gastroenterol Hepatol 28(2):342-7 PMID: 23190028
- Clark ML** et al 2007 - *Biomonitoring of estrogen and melatonin metabolites among women residing near radio and television broadcasting transmitters* J Occup Environ Med 49(10):1149-56 PMID: 18000420
- Clay E** et al 2013 - *Contribution of prolonged-release melatonin and anti-benzodiazepine campaigns to the reduction of benzodiazepine and z-drugs consumption in nine European countries* Eur J Clin Pharmacol 69(4):1-10 PMID: 23114457
- Coelho LA** et al 2012 - *197 expression of melatonin-related genes in rat cumulus-oocyte complexes* Reprod Fertil Dev 25(1):247 PMID: 23245031
- Col C** et al 2010 - *Oxidative stress and lipid peroxidation products: effect of pinealectomy or exogenous melatonin injections on biomarkers of tissue damage during acute pancreatitis* Hepatobiliary Pancreat Dis Int 9(1):78-82 PMID: 20133234
- Conboy L** et al 2009 - *The antidepressant agomelatine blocks the adverse effects of stress on memory and enables spatial learning to rapidly increase neural cell adhesion molecule (NCAM) expression in the hippocampus of rats* Int J Neuropsychopharmacol 12(3):329-41 PMID: 18706130
- Cook MR** et al 2000 - *Morning urinary assessment of nocturnal melatonin secretion in older women* J Pineal Res 28(1):41-7 PMID: 10626600
- Cucina A** et al 2009 - *Evidence for a biphasic apoptotic pathway induced by melatonin in MCF-7 breast cancer cells* J Pineal Res 46(2):172-80 PMID: 19175854
- Daglioglu E** et al 2009 - *Neuroprotective effect of melatonin on experimental peripheral nerve injury: an electron microscopic and biochemical study* Cen Eur Neurosurg 70(3):109-14 PMID: 19701868
- Dallaspezia S & F Benedetti** 2009 - *Melatonin, circadian rhythms, and the clock genes in bipolar disorder* Curr Psychiatry Rep 11(6):488-93 PMID: 19909672
- Danielczyk K & P Dziegiel** 2009 - *MT1 melatonin receptors and their role in the oncostatic action of melatonin* Postepy Hig Med Dosw (Online) 63:425-34 PMID: 19837985
- Das A** et al 2010 - *The inhibition of apoptosis by melatonin in VSC4.1 motoneurons exposed to oxidative stress, glutamate excitotoxicity, or TNF-alpha toxicity involves membrane melatonin receptors* J Pineal Res 48(2):157-69 PMID: 20082663
- Das A** et al 2008 - *Cytoprotective effects of melatonin on C6 astroglial cells exposed to glutamate excitotoxicity and oxidative stress* J Pineal Res 45(2):117-24 PMID: 18373557
- Davanipour Z** et al 2009 - *Endogenous melatonin and oxidatively damaged guanine in DNA* BMC Endocr Disord 9(1):22 PMID: 19835624
- Davis S** et al 2006 - *Effects of 60-Hz magnetic field exposure on nocturnal 6-sulfatoxymelatonin, estrogens, luteinizing hormone, and follicle-stimulating hormone in healthy reproductive-age women: results of a crossover trial* Ann Epidemiol 16(8):622-31 PMID: 16458540
- Dell'Omo G** et al 2009 - *Magnetic fields produced by power lines do not affect growth, serum melatonin, leukocytes and fledging success in wild kestrels* Comp Biochem Physiol C Toxicol Pharmacol 150(3):372-6 PMID: 19524062
- Díaz-Casado ME** et al 2016 - *Melatonin rescues zebrafish embryos from the parkinsonian phenotype restoring the parkin/PINK1/DJ-1/MUL1 network* J Pineal Res 61(1):96-107 PMID: 27064726
- Di Bella G** et al 2013 - *Melatonin anticancer effects: review* Int J Mol Sci 14(2):2410-30 PMID: 23348932
- Diez ER** et al 2009 - *A novel electrophysiologic effect of melatonin on ischemia/reperfusion-induced arrhythmias in isolated rat hearts* J Pineal Res 46(2):155-60 PMID: 19175855
- Dilek M** et al 2010 - *Melatonin modulates Hippocampus NMDA Receptors, Blood and Brain Oxidative Stress Levels in Ovariectomized Rats* J Membr Biol 233(1-3):135-42 PMID: 20140668
- Djeridane Y** et al 2005 - *Old rats are more sensitive to photoperiodic changes. A study on pineal melatonin* Exp Gerontol 40(5):403-8 PMID: 15919592

- Dominoni DM** et al 2013 - *Urban-like night illumination reduces melatonin release in European blackbirds (Turdus merula): implications of city life for biological time-keeping of songbirds* Front Zool 10(1):60 PMID: 24090446
- Dowling GA** et al 2008 - *Melatonin and bright-light treatment for rest-activity disruption in institutionalized patients with Alzheimer's disease* J Am Geriatr Soc 56(2):239-46 PMID: 18070004
- Dubovsky SL & C Warren** 2009 - *Agomelatine, a melatonin agonist with antidepressant properties* Expert Opin Investig Drugs 18(10):1533-40 PMID: 19758108
- Duffy JF** et al 2002 - *Peak of circadian melatonin rhythm occurs later within the sleep of older subjects* Am J Physiol Endocrinol Metab 282(2):E297-303 PMID: 11788360
- du Plessis SS** et al 2010 - *The in vitro effects of melatonin on human sperm function and its scavenging activities on NO and ROS* Andrologia 42(2):112-6 PMID: 20384801
- Duru FI** et al 2008 - *Brief ischaemia reduces testicular lipid preoxidation following subsequent ischaemia: an evidence for ischaemic preconditioning* Nig Q J Hosp Med 18(3):149-52 PMID: 19062479
- Dzherieva iS** et al 2012 - *[Melatonin and metabolic syndrome: is there an association?]* Ter Arkh 84(10):109-12 PMID: 23227512
- Dziegiel P** et al 2008 - *Melatonin: Adjuvant therapy of malignant tumors* Med Sci Monit 14(5):RA64-70 PMID: 18443563
- Eckerberg B** et al 2012 - *Melatonin Treatment Effects on Adolescent Students' Sleep Timing and Sleepiness in a Placebo-Controlled Crossover Study* Chronobiol Int 29(9):1239-48 PMID: 23005039
- El-Helaly M & E Abu-Hashem** 2010 - *Oxidative stress, melatonin level, and sleep insufficiency among electronic equipment repairers* Indian J Occup Environ Med 14(3):66-70 PMID: 21461157
- El-Sokkary GH** et al 2010 - *Melatonin administration ameliorates cadmium-induced oxidative stress and morphological changes in the liver of rat* Ecotoxicol Environ Saf 73(3):456-63 PMID: 19913298
- Erdem Koç G** et al 2016 - *Neuroprotective effects of melatonin and omega-3 on hippocampal cells prenatally exposed to 900 MHz electromagnetic fields* Int J Radiat Biol 92(10):590-5 PMID: 27442260
- Ergün Y** et al 2008 - *Combination therapy of imipramine and melatonin: Additive antidepressant effect in mouse forced swimming test* Eur J Pharmacol 591(1-3):159-63 PMID: 18601918
- Erren TC & RJ Reiter** 2008 - *A generalized theory of carcinogenesis due to chronodisruption* Neuro Endocrinol Lett 29(6):815-21 PMID: 19112419
- Ersahin M** et al 2009 - *Melatonin reduces experimental subarachnoid hemorrhage-induced oxidative brain damage and neurological symptoms* J Pineal Res 46(3):324-32 PMID: 19215574
- Ersoz N** et al 2009 - *Melatonin prevents peritoneal adhesions in rats* J Gastroenterol Hepatol 24(11):1763-7 PMID: 19686418
- Ersoz N** et al 2009 - *Comparison of the Efficacy of Melatonin and 1400W on Renal Ischemia/Reperfusion Injury: A Role of Inhibiting iNOS* Ren Fail 31(8):704-10 PMID: 19814638
- Esposito E** et al 2009 - *Melatonin reduces stress-activated/mitogen-activated protein kinases in spinal cord injury* J Pineal Res 46(1):79-86 PMID: 19090911
- Esteban S** et al 2010 - *Chronic melatonin treatment and its precursor L-tryptophan improve the monoaminergic neurotransmission and related behavior in the rat brain* J Pineal Res 48(2):170-7 PMID: 20082664
- Fan LL** et al 2010 - *Melatonin and Doxorubicin synergistically induce cell apoptosis in human hepatoma cell lines* World J Gastroenterol 16(12):1473-81 PMID: 20333787
- Fang Q** et al 2009 - *Influence of melatonin on cerebrovascular proinflammatory mediators expression and oxidative stress following subarachnoid hemorrhage in rabbits* Mediators Inflamm 2009:426346 PMID: 20169093
- Favero G** et al 2017 - *Melatonin: Protection against age-related cardiac pathology* Ageing Res Rev 35:336-349 PMID: 27884595

- Feng Z** et al 2004 - *Melatonin alleviates behavioral deficits associated with apoptosis and cholinergic system dysfunction in the APP 695 transgenic mouse model of Alzheimer's disease* J Pineal Res 37(2):129-36 PMID: 15298672
- Fernandes PA** et al 2009 - *Local corticosterone infusion enhances nocturnal pineal melatonin production in vivo* J Neuroendocrinol 21(2):90-7 PMID: 19076264
- Fernandez BE** et al 2013 - *Ovarian aging: melatonin regulation of the cytometric and endocrine evolutive pattern* Curr Aging Sci 6(1):1-7 PMID: 23237598
- Feskanich D** et al 2009 - *Nightshift work and fracture risk: the Nurses' Health Study* Osteoporos Int 20(4):537-42 PMID: 18766292
- Figueiro MG** et al 2009 - *A personal light-treatment device for improving sleep quality in the elderly: dynamics of nocturnal melatonin suppression at two exposure levels* Chronobiol Int 26(4):726-39 PMID: 19444752
- Fischer TW** et al 2013 - *Melatonin enhances antioxidative enzyme gene expression (CAT, GPx, SOD), prevents their UVR-induced depletion, and protects against the formation of DNA damage (8-hydroxy-2'-deoxyguanosine) in ex vivo human skin* J Pineal Res 54(3):303-12 PMID: 23110400
- Fischer TW** et al 2008 - *Melatonin as a major skin protectant: from free radical scavenging to DNA damage repair* Exp Dermatol 17(9):713-30 PMID: 18643846
- Fujinoki M** 2008 - *Melatonin-enhanced hyperactivation of hamster sperm* Reproduction 136(5):533-41 PMID: 18715981
- Galli-Carminati G** et al 2009 - *Melatonin in treatment of chronic sleep disorders in adults with autism: a retrospective study* Swiss Med Wkly 139(19-20):293-6 PMID: 19452292
- García JJ** et al 2010 - *Melatonin reduces membrane rigidity and oxidative damage in the brain of SAMP(8) mice* Neurobiol Aging 32(11):2045-54 PMID: 20096480
- García-Ispuerto I** et al 2013 - *Melatonin treatment at dry-off improves reproductive performance postpartum in high-producing dairy cows under heat stress conditions* Reprod Domest Anim 48(4):577-83 PMID: 23170926
- García-Marín R** et al 2012 - *Melatonin-synthesizing enzymes and melatonin receptor in rat thyroid cells* Histol Histopathol 27(11):1429-38 PMID: 23018242
- Garde AH** et al 2009 - *Sleep length and quality, sleepiness and urinary melatonin among healthy Danish nurses with shift work during work and leisure time* Int Arch Occup Environ Health 82(10):1219-28 PMID: 19396613
- Garzón C** et al 2009 - *Effect of melatonin administration on sleep, behavioral disorders and hypnotic drug discontinuation in the elderly: a randomized, double-blind, placebo-controlled study* Aging Clin Exp Res 21(1):38-42 PMID: 19225268
- Ghaisas MM** et al 2011 - *Effects of Combination of Thiazolidinediones with Melatonin in Dexamethasone-induced Insulin Resistance in Mice* Indian J Pharm Sci 73(6):601-7 PMID: 23112392
- Girgert R** et al 2010 - *Signal transduction of the melatonin receptor MT1 is disrupted in breast cancer cells by electromagnetic fields* Bioelectromagnetics 31(3):237-45 PMID: 19882681
- Girgert R** et al 2009 - *Membrane-bound melatonin receptor MT1 down-regulates estrogen responsive genes in breast cancer cells* J Pineal Res 47(1):23-31 PMID: 19522736
- Gocgeldi E** et al 2008 - *Establishing the use of melatonin as an adjuvant therapeutic against paraquat-induced lung toxicity in rats* Exp Biol Med (Maywood) 233(9):1133-41 PMID: 18535163
- Gómez-Corvera A** et al 2009 - *Evidence of immune system melatonin production by two pineal melatonin deficient mice, C57BL/6 and Swiss strains* J Pineal Res 47(1):15-22 PMID: 19522737
- Gómez-Moreno G** et al 2010 - *Melatonin in diseases of the oral cavity* Oral dis 16(3):242-7 PMID: 19682319
- Grant SG** et al 2009 - *Melatonin and breast cancer: cellular mechanisms, clinical studies and future perspectives* Expert Rev Mol Med 11:e5 PMID: 19193248
- Greenlee H** et al 2009 - *Use of antioxidant supplements during breast cancer treatment: a comprehensive review* Breast Cancer Res Treat 115(3):437-52 PMID: 18839308

- Gringras P** et al 2012 - *Melatonin for sleep problems in children with neurodevelopmental disorders: randomised double masked placebo controlled trial* BMJ 345:e6664 PMID: 23129488
- Grossman E** et al 2006 - *Melatonin reduces night blood pressure in patients with nocturnal hypertension* Am J Med 119(10):898-902 PMID: 17000226
- Grundy A** et al 2009 - *Light intensity, exposure, sleep duration, physical activity, and biomarkers of melatonin among rotating shift nurses* Chronobiol Int 26(7):1443-61 PMID: 19916841
- Gulcin I** 2008 - *Measurement of antioxidant ability of melatonin and serotonin by the DMPD and CUPRAC methods as trolox equivalent* J Enzyme Inhib Med Chem 23(6):871-6 PMID: 18608760
- Gül M** et al 2008 - *Protective effects of melatonin and aminoguanidine on the cornea in streptozotocin-induced diabetic rats* Cornea 27(7):795-801 PMID: 18650666
- Gunasingh MJ** et al 2008 - *Melatonin prevents amyloid protofibrillar induced oxidative imbalance and biogenic amine catabolism* Life Sci 83(3-4):96-102 PMID: 18590917
- Guo L** et al 2008 - *Effects of melatonin on nerve cell apoptosis and expression of Bcl-2 and cytochrome C genes in rat cerebrum with deltamethrin induction* Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi 26(4):215-8 PMID: 18724894
- Gupta S & C Haldar** 2013 - *Physiological crosstalk between melatonin and glucocorticoid receptor modulates T-cell mediated immune responses in a wild tropical rodent, Funambulus pennant* J Steroid Biochem Mol Biol 134:23-36 PMID: 23059469
- Gutierrez-Cuesta J** et al 2008 - *Evaluation of potential pro-survival pathways regulated by melatonin in a murine senescence model* J Pineal Res 45(4):497-505 PMID: 18705649
- Haim A & AE Zubidat** 2015 - *Artificial light at night: melatonin as a mediator between the environment and epigenome* Philos Trans R Soc Lond B Biol Sci 370(1667) PMID: 25780234
- Halgamuge MN** 2013 - *Critical time delay of the pineal melatonin rhythm in humans due to weak electromagnetic exposure* Indian J Biochem Biophys 50(4):259-65 PMID: 24772943
- Han J** et al 2008 - *Melatonin reverses the expression of morphine-induced conditioned place preference through its receptors within central nervous system in mice* Eur J Pharmacol 594(1-3):125-31 PMID: 18706407
- Han XH & L Xu** 2012 - *[Protective effect of melatonin on myocardial injury in severely- burned rats]* Zhongguo Wei Zhong Bing Ji Jiu Yi Xue 24(12):747-9 PMID: 23168205
- Hanifin JP** et al 2006 - *High-intensity red light suppresses melatonin* Chronobiol Int 23(1-2):251-68 PMID: 16687299
- Hardeland R** 2009 - *New approaches in the management of insomnia: weighing the advantages of prolonged-release melatonin and synthetic melatonineric agonists* Neuropsychiatr Dis Treat 5:341-54 PMID: 19557144
- Hardeland R** 2008 - *Melatonergic drugs in clinical practice* Arzneimittelforschung 58(1):1-10 PMID: 18368944
- Hardeland R** 2005 - *Antioxidative protection by melatonin: multiplicity of mechanisms from radical detoxification to radical avoidance* Endocrine 27 (2): 119-30 PMID: 16217125
- Hartman RE** et al 2008 - *Long-term effects of melatonin after intracerebral hemorrhage in rats* Acta Neurochir Suppl 105:99-100 PMID: 19066091
- Henshaw DL** et al 2008 - *Can disturbances in the atmospheric electric field created by powerline corona ions disrupt melatonin production in the pineal gland?* J Pineal Res 45(4):341-50 PMID: 18384531
- Henshaw DL & Reiter RJ** 2005 - *Do magnetic fields cause increased risk of childhood leukemia via melatonin disruption?* Bioelectromagnetics Suppl 7: S86-97 PMID: 16059923
- Heo JY** et al 2017 - *Effects of smartphone use with and without blue light at night in healthy adults: A randomized, double-blind, cross-over, placebo-controlled comparison* J Psychiatr Res 87:61-70 PMID: 28017916
- Heussler H** et al 2013 - *Pharmacological and non-pharmacological management of sleep disturbance in children: An Australian Paediatric Research Network survey* Sleep Med 14(2):189-94 PMID: 23245853
- Hill SM** et al 2011 - *Melatonin and associated signaling pathways that control normal breast epithelium and breast cancer* J Mammary Gland Biol Neoplasia 16(3):235-45 PMID: 21773809

- Hlutkin S & V Zinchuk** 2008 - *Effect of melatonin on the blood oxygen transport during hypothermia and rewarming in rats* Adv Med Sci 53(2):234-9 PMID: 18930873
- Hong RT et al** 2009 - *Melatonin ameliorates experimental hepatic fibrosis induced by carbon tetrachloride in rats* World J Gastroenterol 15(12):1452-8 PMID: 19322917
- Hoppe JB et al** 2010 - *Amyloid-beta neurotoxicity in organotypic culture is attenuated by melatonin: involvement of GSK-3beta, tau and neuroinflammation* J Pineal Res 48(3):230-8 PMID: 20136701
- Huai JP et al** 2012 - *Melatonin attenuates acute pancreatitis-associated lung injury in rats by modulating interleukin 22* World J Gastroenterol 18(36):5122-8 PMID: 23049224
- Huang F et al** 2009 - *Melatonin pretreatment attenuates 2-bromopropane-induced testicular toxicity in rats* Toxicology 256(1-2):75-82 PMID: 19061934
- Hussein MR et al** 2008 - *Melatonin and roentgen irradiation-induced acute radiation enteritis in Albino rats: An animal model* Cell Biol Int 32(11):1353-61 PMID: 18762261
- Hutton LC et al** 2009 - *Neuroprotective properties of Melatonin in a Model of Birth Asphyxia in the Spiny Mouse (Acomys cahirinus)* Dev Neurosci 31(5):437-451 PMID: 19684403
- Ilbey YO et al** 2009 - *Melatonin prevents acetaminophen-induced nephrotoxicity in rats* Int Urol Nephrol 41(3):695-702 PMID: 19117117
- Ismail SA & HA Mowafi** 2009 - *Melatonin provides anxiolysis, enhances analgesia, decreases intraocular pressure, and promotes better operating conditions during cataract surgery under topical anesthesia* Anesth Analg 108(4):1146-51 PMID: 19299777
- Ismailoglu O et al** 2012 - *The therapeutic effects of melatonin and nimodipine in rats after cerebral cortical injury* Turk Neurosurg 22(6):740-6 PMID: 23208906
- Ivanenko A et al** 2003 - *Melatonin in children and adolescents with insomnia: a retrospective study* Clin Pediatr (Phila) 42(1):51-8 PMID: 12635982
- Izykowska I et al** 2009b - *Effect of melatonin on human keratinocytes and fibroblasts subjected to UVA and UVB radiation In vitro* In Vivo 23(5):739-45 PMID: 19779109
- Izykowska I et al** 2009a - *Effect of Melatonin on Melanoma Cells Subjected to UVA and UVB Radiation in In Vitro Studies* In Vivo 23(5):733-8 PMID: 19779108
- Jain SV et al** 2014 - *Central Sleep Apnea: Does Stabilizing Sleep Improve It?* J Child Neurol 29(1):96-8 PMID: 23220792
- Jan JE et al** 2009 - *The role of the thalamus in sleep, pineal melatonin production, and circadian rhythm sleep disorders* J Pineal Res 46(1):1-7 PMID: 18761566
- Jang SS et al** 2013 - *Melatonin reduces X-ray radiation-induced lung injury in mice by modulating oxidative stress and cytokine expression* Int J Radiat Biol 89(2):97-105 PMID: 23046278
- Jang SS et al** 2009 - *Melatonin exerts differential actions on X-ray radiation-induced apoptosis in normal mice splenocytes and Jurkat leukemia cells* J Pineal Res 47(2):147-55 PMID: 19555448
- Jensen MA et al** 2016 - *Changes in the diurnal rhythms of cortisol, melatonin, and testosterone after 2,4, and 7 consecutive night shifts in male police officers* Chronobiol Int 11:1-13 PMID: 27715321
- Jiang N et al** 2016 - *Role of monochromatic light on daily variation of clock gene expression in the pineal gland of chick* J Photochem Photobiol B 164:57-64 PMID: 27643985
- Jiang T et al** 2012 - *Melatonin-Mediated Cytoprotection against Hyperglycemic Injury in Müller Cells* PloS One 7(12):e50661 PMID: 23226532
- Jonsson L et al** 2010 - *Mutation screening of melatonin-related genes in patients with autism spectrum disorders* BMC Med Genomics 3(1):10 PMID: 20377855
- Joo SS & YM Yoo** 2009 - *Melatonin induces apoptotic death in LNCaP cells via p38 and JNK pathways: therapeutic implications for prostate cancer* J Pineal Res 47(1):8-14 PMID: 19522739
- Juutilainen J & T Kumlin** 2006 - *Occupational magnetic field exposure and melatonin: interaction with light-at-night* Bioelectromagnetics 27(5):423-6 PMID: 16622861

- Kadena M** et al 2017 – *Microarray and gene co-expression analysis reveals that melatonin attenuates immune responses and modulates actin rearrangement in macrophages* *Biochem Biophys Res Commun* 485(2):414-420 PMID: 28209510
- Kain ZN** et al 2009 - *Preoperative Melatonin and Its Effects on Induction and Emergence in Children Undergoing Anesthesia and Surgery* *Anesthesiology* 111(1):44-49 PMID: 19546692
- Kakizaki M** et al 2008 - *Sleep duration and the risk of breast cancer: the Ohsaki Cohort Study* *Br J Cancer* 99(9):1502-5 PMID: 18813313
- Kakizaki M** et al 2008 - *Sleep duration and the risk of prostate cancer: the Ohsaki Cohort Study* *Br J Cancer* 99(1):176-8 PMID: 18542076
- Kandil TS** et al 2010 - *The potential therapeutic effect of melatonin in gastro-esophageal reflux disease* *BMC Gastroenterol* 10(1):7 PMID: 20082715
- Kara A** et al 2013 – *Immune modulatory and antioxidant effects of melatonin in experimental periodontitis in rats* *Free Radic Biol Med* 55:21-6 PMID: 23146767
- Karbownik M** et al 2001 - *Comparison of the protective effect of melatonin with other antioxidants in the hamster kidney model of estradiol-induced DNA damage* *Mutat Res* 474 (1 – 2): 87 – 92 PMID: 11239965
- Kaur C** et al 2013 - *Neuroprotective effect of melatonin against hypoxia-induced retinal ganglion cell death in neonatal rats* *J Pineal Res* 54(2):190-206 PMID: 23113620
- Kaur C** et al 2010 - *Melatonin protects periventricular white matter from damage due to hypoxia* *J Pineal Res* 48(3):185-93 PMID: 20136703
- Kaur C** et al 2008 - *Melatonin attenuates hypoxia-induced ultrastructural changes and increased vascular permeability in the developing hippocampus* *Brain Pathol* 18(4):533-47 PMID: 18422758
- Kaur C & EA Ling** 2008 - *Antioxidants and neuroprotection in the adult and developing central nervous system* *Curr Med Chem* 15(29):3068-80 PMID: 19075654
- Kaya Y** et al 2013 – *Does circadian rhythm disruption induced by light-at-night has beneficial effect of melatonin on sciatic nerve injury?* *J Chem Neuroanat* 53:18-24 PMID: 23969081
- Kedziora-Kornatowska K** et al 2009 - *Melatonin improves oxidative stress parameters measured in the blood of elderly type 2 diabetic patients* *J Pineal Res* 46(3):333-7 PMID: 19317795
- Kedziora-Kornatowska K** et al 2008 – *Antioxidative effects of melatonin administration in elderly primary essential hypertension patients* *J Pineal Res* 45(3):312-7 PMID: 18363674
- Kesari KK** et al 2012 - *Pathophysiology of microwave radiation: effect on rat brain* *Appl Biochem Biotechnol* 166(2):379-88 PMID: 22134878
- Keshet-Sitton A** et al 2017 – *Illuminating a risk for breast cancer: A preliminary ecological study on the association between streetlight and breast cancer* *Integr Cancer Ther* 16(4):451-463 PMID: 27899698
- Kesik V** et al 2009 - *Melatonin and 1400 W ameliorate both intestinal and remote organ injury following mesenteric ischemia/reperfusion* *J Surg Res* 157(1):e97-e105 PMID: 19394656
- Kim MK** et al 2013 - *Does supplementation of in-vitro culture medium with melatonin improve IVF outcome in PCOS?* *Reprod Biomed Online* 26(1):22-9 PMID: 23177415
- Kinker GS** et al 2016 – *Melatonergic system-based two-gene index is prognostic in human gliomas* *J Pineal Res* 60(1):84-94 PMID: 26510398
- Kireev R** et al 2013 - *Melatonin treatment protects liver of Zucker rats after ischemia/reperfusion by diminishing oxidative stress and apoptosis* *Eur J Pharmacol* 701(1-3):185-93 PMID: 23220161
- Kireev RA** et al 2008 – *melatonin is able to prevent the liver of old castrated female rats from oxidative and pro-inflammatory damage* *J Pineal Res* 45(4):394-402 PMID: 18573161
- Kloog I** et al 2011 - *Does the modern urbanized sleeping habitat pose a breast cancer risk?* *Chronobiol Int* 28(1):76-80 PMID: 21182407
- Kloog I** et al 2008 - *Light at night co-distributes with incident breast but not lung cancer in the female population of Israel* *Chronobiol Int* 25(1):65-81 PMID: 18293150

- Klupińska G** et al 2009 - *[The effect of melatonin on oxidative DNA damage in gastric mucosa cells of patients with functional dyspepsia]* Pol Merkur Lekarski 26(155):366-9 PMID: 19606675
- Koch BC** et al 2008 - *The effects of melatonin on sleep-wake rhythm of daytime haemodialysis patients: a randomized, placebo-controlled, cross-over study (EMSCAP study)* Br J Clin Pharmacol 67(1):68-75 PMID: 19076157
- Koh PO** 2008a - *Melatonin prevents ischemic brain injury through activation of the mTOR/p70S6 kinase signalling pathway* Neurosci Lett 144(1):74-8 PMID: 18721861
- Koh PO** 2008b - *Melatonin regulates nitric oxide synthase expression in ischemic brain injury* J Vet Med Sci 70(7):747-50 PMID: 18685253
- Kontek R & H Nowicka** 2013 - *The modulatory effect of melatonin on genotoxicity of irinotecan in healthy human lymphocytes and cancer cells* Drug Chem Toxicol 36(3):335-42 PMID: 23126525
- Konturek PC** et al 2008 - *Tryptophan free diet delays healing of chronic gastric ulcers in rat* J Physiol Pharmacol 59 Suppl 2:53-65 PMID: 18812628
- Korkmaz GG** et al 2012 - *Melatonin ameliorates oxidative damage in hyperglycemia-induced liver injury* Clin Invest Med 35(6):E370 PMID: 23217563
- Korkmaz A** et al 2009 - *Role of melatonin in metabolic regulation* Rev Endocr Metab Disord 10(4):261-70 PMID: 19911281
- Korkmaz A** et al 2009 - *Role of melatonin in the epigenetic regulation of breast cancer* Breast Cancer Res Treat 115(1):13-27 PMID: 18592373
- Kozaki Tet** et al 2008 - *Effects of short wavelength control in polychromatic light sources on nocturnal melatonin secretion* Neurosci Lett 439(3):256-9 PMID: 18534755
- Kucuktulu E** 2012 - *Protective effect of melatonin against radiation induced nephrotoxicity in rats* Asian Pac J Cancer Prev 13(8):4101-5 PMID: 23098524
- Lahiri S** et al 2009 - *Melatonin protects against experimental reflux esophagitis* J Pineal Res 46(2):207-13 PMID: 19067786
- Laste G** et al 2012 - *Melatonin administration reduces inflammatory pain in rats* J Pain Res 5:359-62 PMID: 23204863
- Lazar AS** et al 2013 - *Circadian period and the timing of melatonin onset in men and women: predictors of sleep during the weekend and in the laboratory* J Sleep Res 22(2):155-9 PMID: 23216995
- Lee J** et al 2012 - *Urinary 6-sulfatoxymelatonin level in girls and its relationship with obesity* Korean J Pediatr 55(9):344-9 PMID: 23049592
- Lewy AJ** 2009 - *Circadian misalignment in mood disturbances* Curr Psychiatry Rep 11(6):459-65 PMID: 19909668
- Li HL** et al 2009 - *Melatonin reduces blood pressure in rats with stress-induced hypertension via GABAA receptors* Clin Exp Pharmacol Physiol 36(4):436-40 PMID: 19018803
- Li JY** et al 2008 - *Melatonin protects liver from intestine ischemia reperfusion injury in rats* World J Gastroenterol 14(48):7392-6 PMID: 19109875
- Li Z** et al 2009 - *Melatonin protects kidney grafts from ischemia/reperfusion injury through inhibition of NF- κ B and apoptosis after experimental kidney transplantation* J Pineal Res 46(4):365-72 PMID: 19552759
- Li ZR** et al 2008 - *[Involvement of melatonin in the adjusting effect of electroacupuncture in resisting oxygen stress in cerebral ischemia-reperfusion injury rats]* Zhen Ci Yan Jiu 33(3):164-8 PMID: 18807717
- Lialiaris T** et al 2008 - *Supplementation of melatonin protects human lymphocytes in vitro from the genotoxic activity of melphalan* Mutagenesis 23(5):347-54 PMID: 18502769
- Liang YL** et al 2012 - *Melatonin Protects against Apoptosis-Inducing Factor (AIF)-Dependent Cell Death during Acetaminophen-Induced Acute Liver Failure* PloS One 7(12):e51911 PMID: 23272189
- Lin AM** et al 2009 - *Melatonin inhibits arsenite-induced peripheral neurotoxicity* J Pineal Res 46(1):64-70 PMID: 18715270

- Lin HW & E J Lee** 2009 - *Effects of melatonin in experimental stroke models in acute, sub-acute, and chronic stages* Neuropsychiatr Dis Treat 5:157-62 PMID: 19557110
- Ling ZQ et al** 2009 - *Constant Illumination Induces Alzheimer-Like Damages with Endoplasmic Reticulum Involvement and the Protection of Melatonin* J Alzheimers Dis 16(2):287-300 PMID: 19221418
- Lissoni P et al** 2003 - *Total pineal endocrine substitution therapy (TPEST) as a new neuroendocrine palliative treatment of untreatable metastatic solid tumor patients: a phase II study* Neuro Endocrinol Lett 24(3-4):259-62 PMID: 14523367
- Liu J et al** 2013 - *Melatonin potentiates running wheel-induced neurogenesis in the dentate gyrus of adult C3H/HeN mice hippocampus* J Pineal Res 54(2):222-31 PMID: 23190173
- Liu Y et al** 2009 - *Melatonin modulates acute testicular damage induced by carbon ions in mice* Pharmazie 64(10):685-9 PMID: 19947173
- Lochner A et al** 2013 - *Cardioprotective effect of melatonin against ischaemia/reperfusion damage* Front Biosci (Elite Ed) E5:305-315 PMID: 23276991
- Lockley SW et al** 2003 - *High sensitivity of the human circadian melatonin rhythm to resetting by short wavelength light* J Clin Endocrinol Metab 88(9):4502-5 PMID: 12970330
- Lu WZ et al** 2009 - *The effects of melatonin on colonic transit time in normal controls and IBS patients* Dig Dis Sci 54(5):1087-93 PMID: 18720001
- Lu WZ et al** 2005 - *Melatonin improves bowel symptoms in female patients with irritable bowel syndrome: a double-blind placebo-controlled study* Aliment Pharmacol Ther 22(10):927-34 PMID: 16268966
- Machida M et al** 2009 - *Serum melatonin levels in adolescent idiopathic scoliosis prediction and prevention for curve progression - a prospective study* J Pineal Res 46(3):344-8 PMID: 19317797
- Mack JM et al** 2016 - *Melatonergic system in Parkinson's disease: from neuroprotection to the management of motor and nonmotor symptoms* Oxid Med Cell Longev 2016:3472032 PMID: 27829983
- Maganhin CC et al** 2008 - *Melatonin effects on the female genital system: a brief review* Rev Assoc Med Bras 54(3):267-71 PMID 18604407
- Magnanou E et al** 2009 - *The timing of the shrew: continuous melatonin treatment maintains youthful rhythmic activity in aging Crocidura russala* PLoS One 4(6):e5904 PMID: 19526053
- Maity P et al** 2009 - *Melatonin reduces indomethacin-induced gastric mucosal cell apoptosis by preventing mitochondrial oxidative stress and the activation of mitochondrial pathway of apoptosis* J Pineal Res 46(3):314-23 PMID: 19220725
- Makay B et al** 2009 - *The interaction of oxidative stress response with cytokines in the thyrotoxic rat: is there a link?* Mediators Inflamm :391682 PMID: 19343192
- Maldonado MD et al** 2010 - *Evidence of melatonin synthesis and release by mast cells. Possible modulatory role on inflammation* Pharmacol Res 62(3):282-7 PMID: 19963060
- Manda K et al** 2010 - *Melatonin maintains adult hippocampal neurogenesis and cognitive functions after irradiation* Prog Neurobiol 90(1):60-8 PMID: 19857546
- Manda K et al** 2009 - *Cranial irradiation-induced inhibition of neurogenesis in hippocampal dentate gyrus of adult mice: attenuation by melatonin pretreatment* J Pineal Res 46(1):71-8 PMID: 18798786
- Manda K et al** 2007 - *AFMK, a melatonin metabolite, attenuates X-ray-induced oxidative damage to DNA, proteins and lipids in mice* J Pineal Res 42(4):386-93 PMID: 17439555
- Markt SC et al** 2015 - *Circadian clock genes and risk of fatal prostate cancer* Cancer Causes Control 26(1):25-33 PMID: 25388799
- Marseglia L et al** 2015 - *Analgesic, anxiolytic and anaesthetic effects of Melatonin: new potential uses in paediatrics* Int J Mol Sci 16(1):1209-1220 PMID: 25569095
- Martín V et al** 2010 - *Melatonin sensitizes human malignant glioma cells against TRAIL-induced cell death* Cancer Lett 287(2):216-23 PMID: 19632770

- Martínez-Águila A** et al 2013 - *Melatonin analogue agomelatine reduces rabbit's intraocular pressure in normotensive and hypertensive conditions* Eur J Pharmacol 701(1-3):213-7 PMID: 23270715
- Masilamoni JG** et al 2008 - *The neuroprotective role of melatonin against amyloid beta peptide injected mice* Free Radi Res 42(7):661-73 PMID: 18654881
- Mayer G** et al 2009 - *Efficacy and safety of 6-month nightly ramelteon administration in adults with chronic primary insomnia* Sleep 32(3):351-60 PMID: 19294955
- Meena R** et al 2014 - *Therapeutic approaches of melatonin in microwave radiations-induced oxidative stress-mediated toxicity on male fertility pattern of Wistar rats* Electromagn Biol Med 33(2):81-91 PMID: 23676079
- Merklinger-Gruchala A** et al 2008 - *Low estradiol levels in women of reproductive age having low sleep variation* Eur J Cancer Prev 17(5):467-72 PMID: 18714190
- Miano S** et al 2008 - *Melatonin to prevent migraine or tension-type headache in children* Neurol Sci 29(4):285-7 PMID: 18810607
- Millán-Planos** et al 2010 - *Melatonin and structurally-related compounds protect synaptosomal membranes from free radical damage* Int J Mol Sci 11(1):312-28 PMID: 20162018
- Moezi L** et al 2010 - *Gastric healing effect of melatonin against different gastroinvasive agents in cholestatic rats* Pathophysiology 17(1):65-70 PMID: 19767181
- Mohamadin AM** et al 2009 - *Melatonin protects against hydrogen peroxide-induced gastric injury in rats* Clin Exp Pharmacol Physiol 36(4):367-72 PMID: 18986323
- Morioka N** et al 1999 - *Melatonin protects against age-related DNA damage in the brains of female senescence-accelerated mice* J Pineal Res 27(4):202-9 PMID: 10551767
- Moselhy SS & MA Al Mslmani** 2008 - *Chemopreventive effect of lycopene alone or with melatonin against the genesis of oxidative stress and mammary tumors induced by 7,12 dimethyl(a)benzanthracene in sprague dawely female rats* Mol Cell Biochem 319(1-2):175-80 PMID: 18682897
- Mowafi HA & SA Ismail** 2008 - *Melatonin improves tourniquet tolerance and enhances postoperative analgesia in patients receiving intravenous regional anesthesia* Anesth Analg 107(4):1422-6 PMID: 18806063
- Mukda S** et al 2016 - *Melatonin administration reverses the alteration of amyloid precursor protein-cleaving secretases expression in aged mouse hippocampus* Neurosci Lett 621:39-46 PMID: 27068758
- Mukherjee D** et al 2012 - *Melatonin protects against isoproterenol-induced alterations in cardiac mitochondrial energy-metabolizing enzymes, apoptotic proteins, and assists in complete recovery from myocardial injury in rats* J Pineal Res 53(2):166-79 PMID: 23050266
- Muñoz-Hoyos A** et al 2009 - *Serum melatonin concentration in the child with non-organic failure to thrive: comparison with other types of stress* J Biol Regul Homeost Agents 23(1):15-22 PMID: 19321042
- Musumeci T** et al 2013 - *Polymeric nanoparticles augment the ocular hypotensive effect of melatonin in rabbits* Int J Pharm 440(2):135-40 PMID: 23078856
- Nagai R** et al 2008 - *Melatonin preserves fetal growth in rats by protecting against ischemia/reperfusion-induced oxidative/nitrosative mitochondrial damage in the placenta* J Pineal Res 45(3):271-6 PMID: 18373555
- Nakamura Y** et al 2001 - *Changes of serum melatonin level and its relationship to feto-placental unit during pregnancy* J Pineal Res 30(1):29-33 PMID: 11168904
- Ni C** et al 2013 - *Melatonin Premedication Attenuates Isoflurane Anesthesia-Induced β -Amyloid Generation and Cholinergic Dysfunction in the Hippocampus of Aged Rats* Int J Neurosci 123(4):213-20 PMID: 23256744
- Ni Y** et al 2008 - *[Mechanism of liver injury in severe acute pancreatitis rats and role of melatonin]* Zhonghua Yi Xue Za Zhi 88(40):2867-71 PMID: 19080501
- Nieuwenhuis RF** et al 2009 - *Less need for insulin, a surprising effect of phototherapy in insulin-dependent diabetes mellitus* Tijdschr Psychiatr 51(9):693-7 PMID: 19760569
- Ogeturk M** et al 2004 - *Effects of melatonin on carbon tetrachloride-induced changes in rat serum* J Physiol Biochem 60(3):205-10 PMID: 15700767

- Ohta T** et al 2013 - *Melatonin Receptor Agonists for Treating Delirium in Elderly Patients with Acute Stroke* J Stroke Cerebrovasc Dis 22(7):1107-10 PMID: 23017429
- Okatani Y** et al 2003 - *Protective effect of melatonin against mitochondrial injury induced by ischemia and reperfusion of rat liver* Eur J Pharmacol 469(1-3):145-52 PMID: 12782196
- Okatani Y** et al 2003 - *Acutely administered melatonin restores hepatic mitochondrial physiology in old mice* Int J Biochem Cell Biol 35(3):367-75 PMID: 12531250
- Okatani Y** et al 2002 - *Melatonin reduces oxidative damage of neural lipids and proteins in senescence-accelerated mice* Neurobiol Aging 23(4):639-44 PMID: 12009513
- Okatani Y** et al 2002 - *Melatonin protects hepatic mitochondrial respiratory chain activity in senescence-accelerated mice* J Pineal Res 32(3):143-8 PMID: 12074097
- Okatani Y** et al 2002 - *Hepatic mitochondrial dysfunction in senescence-accelerated mice: correction by long-term, orally administered physiological levels of melatonin* J Pineal Res 33(3):127-33 PMID: 12220325
- Okatani Y** et al 2001 - *Melatonin protects against oxidative mitochondrial damage induced in rat placenta by ischemia and reperfusion* J Pineal Res 31(2):173-8 PMID: 11555174
- Oksay T** et al 2014 - *Protective effects of melatonin against oxidative injury in rat testis induced by wireless (2.45 GHz) devices* Andrologia 46(1):65-72 PMID: 23145464
- Oktem F** et al 2005 - *Oxidative damage in the kidney induced by 900-MHz-emitted mobile phone: protection by melatonin* Arch Med Res 36(4):350-5 PMID: 15950073
- Olcese JM** et al 2009 - *Protection against cognitive deficits and markers of neurodegeneration by long-term oral administration of melatonin in a transgenic model of Alzheimer disease* J Pineal Res 47(1):82-96 PMID: 19538338
- O'Neal-Moffitt G** et al 2015 - *Prophylactic melatonin significantly reduces Alzheimer's neuropathology and associated cognitive deficits independent of antioxidant pathways in A β PP(swe)/PS1 mice* Mol Neurodegener 10:27 PMID: 26159703
- Oprea-Ilies G** 2013 - *Expression of melatonin receptors in triple negative breast cancer (TNBC) in African American and Caucasian women: relation to survival* Breast Cancer Res Treat 137(3):677-87 PMID: 23250547
- Orendas P** et al 2009 - *Celecoxib and melatonin in prevention of female rat mammary carcinogenesis* Neoplasma 56(3):252-8 PMID: 19309229
- Ortega-Gutiérrez** et al 2009 - *Protective effect of melatonin against mitomycin C-induced genotoxic damage in peripheral blood of rats* J Biomed Biotechnol PMID: 19859567
- Othman AI** et al 2008 - *Significance of melatonin for the activity and pharmacology of cardiovascular system* Eksp Klin Farmakol 71(3):65-71 PMID: 18793653
- Othman AI** et al 2008 - *Melatonin controls oxidative stress and modulated iron, ferritin, and transferrin levels in Adriamycin treated rats* Life Sci 83(15-16):563-8 PMID: 18793653
- Owskiak A** et al 2010 - *Oxidative stress during aging of the yeast in a stationary culture and its attenuation by antioxidants* Cell Biol Int 34(7):731-6 PMID: 20337598
- Ozdemir F** et al 2009 - *The effects of melatonin on human hepatoma (Hep G2) cell line* Bratisl Lek Listy 110(5):276-9 PMID: 19507660
- Ozen OA** et al 2008 - *Protective effects of melatonin against formaldehyde-induced oxidative damage and apoptosis in rat testes: an immunohistochemical and biochemical study* Syst Biol Reprod Med 54(4-5):169-76 PMID: 18942024
- Ozguner F** et al 2006 - *Protective effects of melatonin and caffeic acid phenethyl ester against retinal oxidative stress in long-term use of mobile phone: a comparative study* Mol Cell Biochem 282(1-2):83-8 PMID: 16317515
- Ozguner F** et al 2005 - *Comparative analysis of the protective effects of melatonin and caffeic acid phenethyl ester (CAPE) on mobile phone-induced renal impairment in rat* Mol Cell Biochem 276(1-2):31-7 PMID: 16132682
- Ozguner F** et al 2004 - *Prevention of mobile phone induced skin tissue changes by melatonin in rat: an experimental study* Toxicol Ind Health 20(6-10):133-9 PMID: 15941010

- Oztürk G** et al 2008 - *Age-related changes in tissue and plasma zinc levels: modulation by exogenously administered melatonin* *Exp Aging Res* 34(4):453-62 PMID: 18726755
- Pagan C** et al 2011 - *Mutation screening of ASMT, the last enzyme of the melatonin pathway, in a large sample of patients with intellectual disability* *BMC Med Genet* 12:17 PMID: 21251267
- Pan L** et al 2009 - *Melatonin protects against oxidative damage in a neonatal rat model of bronchopulmonary dysplasia* *World J Pediatr* 5(3):216-21 PMID: 19693467
- Panchenko AV** et al 2008 - *Colon carcinogenesis in rat vs. variable light* *Vopr Onkol* 54(3):332-7 PMID: 18652239
- Pandi-Perumal SR** et al 2013 - *Melatonin Antioxidative Defense: Therapeutical Implications for Aging and Neurodegenerative Processes* *Neurotox Res* 23(3):267-300 PMID: 22739839
- Pandi-Perumal SR** et al 2009 - *The effect of melatonergic and non-melatonergic antidepressants on sleep: weighing the alternatives* *World J Biol Psychiatry* 10(4 pt 2):342-54 PMID: 18609422
- Pandi-Perumal SR** et al 2008a - *The roles of melatonin and light in the pathophysiology and treatment of circadian rhythm sleep disorders* *Nat Clin Pract Neurol* 4(8):436-47 PMID: 18628753
- Pandi-Perumal SR** et al 2008b - *Physiological effects of melatonin: role of melatonin receptors and signal transduction pathways* *Prog Neurobiol* 85(3):335-53 PMID: 18571301
- Papantoniou K** et al 2014 - *Circadian variation of melatonin, light exposure and diurnal preference in day and night shift workers of both sexes* *Cancer Epidemiol Biomarkers Prev* 23(7):1176-86 PMID: 24812038
- Paredes SD** et al 2009 - *Phytomelatonin: a review* *J Exp Bot* 60(1):57-69 PMID: 19033551
- Paredes SD** et al 2009 - *Melatonin and tryptophan affect the activity-rest rhythm, core and peripheral temperatures, and interleukin levels in the ringdove: changes with age* *J Gerontol A Biol Sci Med Sci* 64(3):340-50 PMID: 19211547
- Parent ME** et al 2012 - *Night Work and the Risk of Cancer Among Men* *Am J Epidemiol* 176(9):751-9 PMID: 23035019
- Pauley SM** 2004 - *Lighting for the human circadian clock: recent research indicates that lighting has become a public health issue* *Med Hypotheses* 63 (4): 588-96 PMID: 15325001
- Pedreira PR** et al 2008 - *Effects of melatonin in an experimental model of ventilator-induced lung injury* *Am J Physiol Lung Cell Mol Physiol* 295(5):L820-7 PMID: 18805959
- Pereira Rde S** 2006 - *Regression of gastroesophageal reflux disease symptoms using dietary supplementation with melatonin, vitamins and aminoacids: comparison with omeprazole* *J Pineal Res* 41(3):195-200 PMID: 16948779
- Petrosillo G** et al 2009 - *Melatonin protects against heart ischemia/reperfusion injury by inhibiting mitochondrial permeability transition pore opening* *Am J Physiol Heart Circ Physiol* 297(4):H1487-93 PMID: 19684190
- Pevet P & E Challet** 2011 - *Melatonin: both master clock output and internal time-giver in the circadian clocks network* *J Physiol Paris* 105(4-6):170-82 PMID: 21914478
- Piasek A** et al 2009 - *Phytochemicals that counteract the cardiotoxic side effects of cancer chemotherapy* *Postepy Hig Med Dosw (Online)* 63:142-58 PMID: 19502676
- Pinheiro SP** et al 2006 - *A prospective study on habitual duration of sleep and incidence of breast cancer in a large cohort of women* *Cancer Res* 66(10):5521-5 PMID: 16707482
- Posmyk MM** et al 2009 - *Melatonin applied to cucumber (*Cucumis sativus* L.) seeds improves germination during chilling stress* *J Pineal Res* 46(2):214-23 PMID: 19141087
- Pukkala E** et al 2006 - *Does incidence of breast cancer and prostate cancer decrease with increasing degree of visual impairment* *Cancer causes Control* 17(4):573-6 PMID: 16596312
- Qin F** et al 2012 - *Effects of 1800-MHz radiofrequency fields on circadian rhythm of plasma melatonin and testosterone in male rats* *J Toxicol Environ Health A* 75(18):1120-8 PMID: 22891885
- Rahman SA** et al 2010 - *Antidepressant action of melatonin in the treatment of Delayed Sleep Phase Syndrome* *Sleep Med* 11(2):131-6 PMID: 20044310

- Raiewski EE** et al 2012 - *Twice Daily Melatonin Peaks in Siberian but not Syrian Hamsters under 24 h Light:Dark:Light:Dark Cycles* Chronobiol Int 29(9):1206-15 PMID: 23003567
- Ramadan TA** et al 2009 - *Effectiveness of exposure to longday followed by melatonin treatment on semen characteristics of Damascus male goats during breeding and non-breeding seasons* Theriogenology 71(3):458-68 PMID: 18817966
- Rao MV** et al 2010 - *Melatonin protection on mercury-exerted brain toxicity in the rat* Drug Chem Toxicol 33(2):209-16 PMID: 20307147
- Rapoport SI & TK Breus** 2011 - *[Melatonin as a most important factor in the action of weak natural magnetic fields on patients with hypertensive disease and coronary heart disease. Part 2]* Klin Med (Mosk) 89(4):4-7 PMID: 21932552
- Rea MS & MG Figueiro** 2010 - *Lack of short-wavelength light during the school day delays dim light melatonin onset (DLMO) in middle school students* Neuro Endocrinol Lett 31(1):4 PMID: 20150866
- Regodón S** et al 2009 - *Melatonin, as an adjuvant-like agent, enhances platelet responsiveness* J Pineal Res 46(3):275-85 PMID: 19196436
- Reiter RJ** et al 2014 - *Melatonin and stable circadian rhythms optimize maternal, placental and fetal physiology* Hum Reprod Update 20(2):293-307 PMID: 24132226
- Reiter RJ** et al 2009 - *The circadian melatonin rhythm and its modulation: possible impact on hypertension* J Hypertens 27 Suppl 6:S17-20 PMID: 19633446
- Reiter RJ** et al 2008 - *Melatonin in relation to the "strong" and "weak" versions of the free radical theory of aging* Adv Med Sci 53(2):119-29 PMID: 18930877
- Reiter RJ** et al 2008 - *Biogenic amines in the reduction of oxidative stress: Melatonin and its metabolites* Neuro Endocrinol Lett 29(4):391-8 PMID: 18766165
- Reiter RJ** et al 2008 - *Melatonin reduces oxidative/nitrosative stress due to drugs, toxins, metals, and herbicides* Neuro Endocrinol Lett 29(5):609-613 PMID: 18987585
- Reiter RJ & A Korkmaz** 2008 - *Clinical aspects of melatonin* Saudi Med J 29(11):1537-47 PMID: 18997997
- Reiter RJ** et al 2007 - *Light at night, chronodisruption, melatonin suppression, and cancer risk: a review* Crit Rev Oncog 13(4):303-28 PMID: 18540832
- Reiter RJ** et al 2007 - *Melatonin in edible plants (phytomelatonin): Identification, concentrations, bioavailability and proposed functions* World Rev Nutr Diet 97:211-30 PMID: 17167296
- Reiter RJ** et al 2007 - *Melatonin therapy in fibromyalgia* Curr Pain Headache Rep 11(5):339-42 PMID: 17894923
- Ren W** et al 2017 - *Melatonin signalling in T cells: Functions and applications* J Pineal Res 62(3) PMID: 28152213
- Reynoldson JN** et al 2008 - *Ramelteon: A novel approach in the treatment of insomnia (CE)(September)* Ann Pharmacother 42(9):1262-71 PMID: 18648020
- Rezzani R** et al 2013 - *Endothelial and vascular smooth muscle cell dysfunction mediated by cyclophylin A and the atheroprotective effects of melatonin* Life Sci 92(17-19):875-82
- Rezzani R** et al 2009 - *Melatonin delivery in solid lipid nanoparticles: prevention of cyclosporine A induced cardiac damage* J Pineal Res 46(3):255-61 PMID: 19196438
- Richter K** et al 2011 - *Recommendations for the prevention of breast cancer in shift workers* EPMA J 2(4):351-6 PMID: 23199173
- Ritzenthaler T** et al 2009 - *Nocturnal urine melatonin and 6-sulphatoxymelatonin excretion at the acute stage of ischaemic stroke* J Pineal Res 46(3):349-52 PMID: 19317798
- Robertson NJ** et al 2013 - *Melatonin augments hypothermic neuroprotection in a perinatal asphyxia model* Brain 136(Pt 1):90-105 PMID: 23183236
- Rodríguez MI** et al 2008 - *Improved mitochondrial function and increased life span after chronic melatonin treatment in senescent prone mice* Exp Gerontol 43(8):749-56 PMID: 18485648

- Rodriguez MI** et al 2007 - *Chronic melatonin treatment reduces the age-dependent inflammatory process in senescence-accelerated mice* J Pineal Res 42(3):272-9 PMID: 17349026
- Rojas H** et al 2008 - *The antioxidant effects of melatonin after intracerebral hemorrhage in rats* Acta Neurochir Suppl 105:19-21 PMID: 19066075
- Rosales-Corral S A** et al 2012 - *Alterations in Lipid Levels of Mitochondrial Membranes Induced by Amyloid- β : A Protective Role of Melatonin* Int J Alzheimers Dis 459806 PMID: 22666620
- Sadeghniaat-Haghighi K** et al 2016 - *Melatonin therapy in shift workers with difficulty falling asleep: A randomized, double-blind, placebo-controlled crossover field study* Work 55(1):225-230 PMID: 27612057
- Sánchez-Barceló EJ** 2003 - *Melatonin and mammary cancer: a short review* Endocr Relat Cancer 10(2): 153-9 PMID: 12790777
- Sanchez-Hidalgo M** et al 2009 - *Age-related changes in melatonin synthesis in rat extrapineal tissues* Exp Gerontol 44(5):328-34 PMID: 19233254
- Sánchez-Hidalgo M** et al 2009 - *decreased MT1 and MT2 melatonin receptor expression in extrapineal tissues of the rat during physiological aging* J Pineal Res 46(1):29-35 PMID: 18513209
- Sande PH** et al 2008 - *Therapeutic effect of melatonin in experimental uveitis* Am J Pathol 173(6):1702-13 PMID: 19008374
- Santini R** et al 2003 - *[Video screen exposure and 6-sulfatoxymelatonin urinary excretion in women* Pathol Biol (Paris) 51(3):143-6 PMID: 12781794
- Sarabia L** et al 2009 - *Melatonin prevents damage elicited by the organophosphorous pesticide diazinon on mouse sperm DNA* Ecotoxicol Environ Saf 72(2):663-8 PMID: 18571725
- Sato M** et al 2013 - *Seasonal differences in melatonin concentrations and heart rates during sleep in obese subjects in Japan* Int J Biometeorol 57(5):743-8 PMID: 23111917
- Saxena G** et al 2009 - *Melatonin alleviates memory deficits and neuronal degeneration induced by intracerebroventricular administration of streptozotocin in rats* Pharmacol Biochem Behav 94(3):397-403 PMID: 19808044
- Schernhammer ES** et al 2010 - *Urinary 6-Sulphatoxymelatonin levels and risk of breast cancer in premenopausal women: The ORDET cohort* Cancer Epidemiol Biomarkers Prev 19(3):729-37 PMID: 20200429
- Schernhammer ES** et al 2009 - *Dietary correlates of urinary 6-sulfatoxymelatonin concentrations in the Nurses' Health Study cohorts* Am J Clin Nutr 90(4):975-85 PMID: 19675108
- Schernhammer ES & SE Hankinson** 2009 - *Urinary melatonin levels and postmenopausal breast cancer risk in the Nurses' Health Study cohort* Cancer Epidemiol Biomarkers Prev 18(1):74-9 PMID: 19124483
- Schernhammer ES** et al 2008 - *Urinary 6-sulfatoxymelatonin levels and risk of breast cancer in postmenopausal women* J Natl Cancer Inst 100(12):898-905 PMID: 18544743
- Schernhammer ES & SE Hankinson** 2005 - *Urinary melatonin levels and breast cancer risk* J Natl Cancer Inst 97(14):1084-7 PMID: 16030307
- Schernhammer E** et al 2004 - *Epidemiology of urinary melatonin in women and its relation to other hormones and night work* Cancer Epidemiol Biomarkers Prev 13 (62): 936-43 PMID: 15184249
- Segawa M** 2008 - *[Development of intellect, emotion, and intentions, and their neuronal systems]* Brain Nerve 60(9):1009-16 PMID: 18807935
- Serfaty MA** et al 2010 - *A randomized double-blind placebo-controlled trial of treatment as usual plus exogenous slow-release melatonin (6mg) or placebo for sleep disturbance and depressed mood* Int Clin Psychopharmacol 25(3):132-42 PMID: 20195158
- Shah T** et al 2008 - *Administration of melatonin mixed with soft food and liquids for children with neurodevelopmental difficulties* Dev Med Child Neurol 50(11):845-9 PMID: 18754762
- Shaker ME** et al 2009 - *Comparison of vitamin E, L-carnitine and melatonin in ameliorating carbon tetrachloride and diabetes induced hepatic oxidative stress* J Physiol Biochem 65(3):225-33 PMID: 20119817

- Sharafati-Chaleshtori R** et al 2017 – *Melatonin and human mitochondrial diseases* J Res Med Sci 22:2 PMID: 28400824
- Sharma S & SV Rana** 2010 - *Melatonin inhibits benzene-induced lipid peroxidation in rat liver* Arh Hig Rada Toksikol 61(1):11-18 PMID: 20338863
- Sharman EH** et al 2008 - *Melatonin causes gene expression in aged animals to respond to inflammatory stimuli in a manner differing from that of young animals* Curr Aging Sci 1(3):152-8 PMID: 20021386
- Shirazi A** et al 2007 - *A radiobiological review on melatonin: a novel radioprotector* J Radiat Res (Tokyo) 48(4):263-72 PMID: 17641465
- Sidhu S** et al 2010 - *Melatonin treatment is beneficial in pancreatic repair process after experimental acute pancreatitis* Eur J Pharmacol 25;628(1-3):282-9 PMID: 19958759
- Sierra AF** et al 2013 - *In vivo and in vitro evaluation of the use of a newly developed melatonin loaded emulsion combined with UV filters as a protective agent against skin irradiation* J Dermatol Sci 69(3):202-14 PMID: 23159282
- Singh S** et al 2015 – *Effect of occupational EMF exposure from radar at two different frequency bands on plasma melatonin and serotonin levels* Int J Radiat Biol 91(5):426-34 PMID: 25565559
- Sirajudeen M** et al 2011 - *Protective effects of melatonin in reduction of oxidative damage and immunosuppression induced by aflatoxin B(1)-contaminated diets in young chicks* Environ Toxicol 26(2):153-60 PMID 19760614
- Skobowiat C** et al 2018 – *melatonin and its derivatives counteract the ultraviolet B radiation-induced damage in human and porcine skin ex vivo* J Pineal Res 65(2):e12501 PMID: 29702749
- Slominski A** et al 2002 - *Serotonergic and melatonergic systems are fully expressed in human skin* FASEB J 16(8):896-8 PMID: 12039872
- Smith MR** et al 2008 - *Shaping the light/dark pattern for circadian adaptation to night shift work* Physiol Behav 95(3):449-56 PMID: 18675836
- Smits MG** et al 2003 – *Melatonin improves health status and sleep in children with idiopathic chronic sleep-onset insomnia: a randomized placebo-controlled trial* J Am Acad Child Adolesc Psychiatry 42(11):1286-93 PMID: 14566165
- Sokolovic D** et al 2015 – *The effects of melatonin on oxidative stress parameters and DNA fragmentation in testicular tissue of rats exposed to microwave radiation* Adv Clin Exp Med 24(3):429-36 PMID: 26467130
- Sokolovic D** et al 2012 – *The effect of melatonin on body mass and behaviour of rats during an exposure to microwave radiation from mobile phone* Bratisl Lek Listy 113(5):265-9 PMID: 22616582
- Sokolovic D** et al 2008 - *Melatonin reduces oxidative stress induced by chronic exposure of microwave radiation from mobile phones in rat brain* J Radiat Res (Tokyo) 49(6):579-86 PMID: 18827438
- Soliman A** et al 2015 – *Placental melatonin system is present throughout pregnancy and regulates villous trophoblast differentiation* J Pineal Res 59(1):38-46 PMID: 25833399
- Song C** et al 2016 – *melatonin improves age-induced fertility decline and attenuates ovarian mitochondrial oxidative stress in mice* Sci Rep 6:35165 PMID: 27731402
- Sönmez MF** et al 2009 – *Melatonin and Vitamin C Attenuates Alcohol-Induced Oxidative Stress in Aorta* Basic Clin Pharmacol Toxicol 105(6):410-5 PMID: 19843043
- Srinath R** et al 2010 - *Salivary and gingival crevicular fluid melatonin in periodontal health and disease* J Periodontol 81(2):277-83 PMID: 20151807
- Srinivasan V** et al 2012 - *Melatonin in antinociception: its therapeutic applications* Curr Neuropharmacol 10(2):167-78 PMID: 23204986
- Srinivasan V** et al 2011 - *Melatonin, immune function and cancer* Recent Pat Endocr Metab Immune Drug Discov 5(2):109-23 PMID: 22074586
- Srinivasan V** et al 2011 - *Therapeutic potential of melatonin and its analogs in Parkinson's disease: focus on sleep and neuroprotection* Ther Adv Neurol Disord 4(5):297-317 PMID: 22010042

- Srinivasan V** et al 2011 - *Melatonin in mitochondrial dysfunction and related disorders* Int J Alzheimers Dis 2011:326320 PMID: 21629741
- Srinivasan V** et al 2010 - *Melatonin and its agonist ramelteon in Alzheimer's disease: possible therapeutic value* Int J Alzheimers Dis 2011:741974 PMID: 21197086
- Srinivasan V** et al 2010 - *Malaria: therapeutic implications of melatonin* J Pineal Res 48(1):1-8 PMID: 20025640
- Srinivasan V** et al 2009 - *Melatonin and melatonergic drugs on sleep: possible mechanisms of action* Int J Neurosci 119(6):821-46 PMID: 19326288
- Srinivasan V** et al 2008 - *Therapeutic actions of melatonin in cancer: possible mechanisms* Integr Cancer Ther 7(3):189-203 PMID: 18815150
- Srinivasan V** et al 2008 - *Melatonin, environmental light, and breast cancer* Breast Cancer Res Treat 108(3):339-50 PMID: 17541739
- Srinivasan V** et al 2008 - *Immunomodulation by melatonin: its significance for seasonally occurring diseases* Neuroimmunomodulation 15(2):93-101 PMID: 18679047
- Stepień A** et al 2009 - *[Melatonin secretion and metabolism in patients with irritable bowel syndrome]* Pol Merkur Lekarski 26(155):440-3 PMID: 19606692
- Stevens RG** 2006 - *Artificial lighting in the industrialised world: circadian disruption and breast cancer* Cancer Causes Control 17(4):501-7 PMID: 16596303
- Stevens RG** et al 2000 - *Alcohol consumption and urinary concentration of 6-sulfatoxymelatonin in healthy women* Epidemiology 11(6):660-5 PMID: 11055626
- Su SC** et al 2017 - *Cancer metastasis: mechanisms of inhibition by melatonin* J Pineal Res 62(1) PMID: 27706852
- Sung JH** et al 2009 - *Identification of proteins differentially expressed by melatonin treatment in cerebral ischemic injury--a proteomics approach* J Pineal Res Apr;46(3):300-6 PMID: 19196433
- Sutherland ER** 2005 - *Nocturnal asthma* J Allergy Clin Immunol 116(6):1179-86 PMID: 16337443
- Sutherland ER** et al 2003 - *Elevated serum melatonin is associated with the nocturnal worsening of asthma* J Allergy Clin Immunol 112(3):513-7 PMID: 13679809
- Sutherland ER** et al 2002 - *Immunomodulatory effects of melatonin in asthma* Am J Respir Crit Care Med 166(8):1055-61 PMID: 12379548
- Tajes-Orduña M** et al 2009 - *An evaluation of the neuroprotective effects of melatonin in an in vitro experimental model of age-induced neuronal apoptosis* J Pineal Res 46(3):262-7 PMID: 19196437
- Talanov SA & VF Sahach** 2008 - *Antioxidants prevent experimental hemiparkinsonism in rats* Fiziol Zh 54(4):23-9 PMID: 18756771
- Tamura H** et al 2017 - *Long-term melatonin treatment delays ovarian aging* J Pineal Res 62(2) PMID: 27889913
- Tamura H** et al 2013 - *Melatonin as a free radical scavenger in the ovarian follicle [Review]* Endocr J 60(1):1-13 PMID: 23171705
- Tamura H** et al 2009 - *Melatonin and the ovary: physiological and pathophysiological implications* Fertil Steril 92(1):328-43 PMID: 18804205
- Tamura H** et al 2008 - *Melatonin and pregnancy in the human* Reprod Toxicol 25(3):291-303 PMID: 18485664
- Tan DX** et al 2013 - *Mitochondria and chloroplasts as the original sites of melatonin synthesis: a hypothesis related to melatonin's primary function and evolution in eukaryotes* J Pineal Res 54(2):127-38 PMID: 23137057
- Tan DX** et al 2007 - *One molecule, many derivatives: a never-ending interaction of melatonin with reactive oxygen and nitrogen species?* J Pineal Res 42(1):28-42 PMID: 17198536
- Tan DX** et al 2002 - *Chemical and physical properties and potential mechanisms: melatonin as a broad spectrum antioxidant and free radical scavenger* Curr Top Med Chem 2(2):181-97 PMID: 11899100
- Tan DX** et al 2000 - *Significance of melatonin in antioxidative defense system: reactions and products* Biol Signals Recept 9(3-4):137-59 PMID: 10899700

- Tan DX** et al 1999 - *Cyclic 3-hydroxymelatonin: a melatonin metabolite generated as a result of hydroxyl radical scavenging* Biol Signals Recept 8(1-2):70-4 PMID: 10085465
- Tasset I** et al 2009 - *Neuroprotective effect of carvedilol and melatonin on 3-nitropropionic acid-induced neurotoxicity in neuroblastoma* J Physiol Biochem 65(3):291-6 PMID: 20119823
- Terán R** et al 2012 - *The life span of Drosophila melanogaster is affected by melatonin and thioctic acid* Invest Clin 53(3):250-61 PMID: 23248969
- Tian XZ** et al 2010 - *Effects of Melatonin on In Vitro Development of Mouse Two-Cell Embryos Cultured in HTF Medium* Endocr Res 35(1):17-23 PMID: 20136515
- Tök L** et al 2014 - *Effects of melatonin on Wi-Fi-induced oxidative stress in lens of rats* Indian J Ophthalmol 62(1):12-5 PMID: 24492496
- Touitou Y** et al 2017 - *Association between light at night, melatonin secretion, sleep deprivation, and the internal clock: Health impacts and mechanisms of circadian disruption* Life Sci 173:94-106 PMID: 28214594
- Tunc T** et al 2010 - *Evaluation of effects of s-methyl isothioureia and melatonin on intestinal ischemia/reperfusion injury in rats* Fetal Pediatr Pathol 29(4):212-23 PMID: 20594145
- Ulubay M** et al 2014 - *Effects of prenatal 900 MHz electromagnetic field exposures on the histology of rat kidney* Int J Radiat Biol Aug 1:1-25 PMID: 25084839
- Umit UM** et al 2012 - *Role of melatonin and luzindole in rat mammary cancer* J Invest Surg 25(6):345-53 PMID: 23215791
- Uzbay T** et al 2013 - *Chronic melatonin treatment reverses disruption of prepulse inhibition in pinealectomized and pinealectomized-plus-ovariectomized rats* Behav Brain Res 239:1-7 PMID: 23078952
- Van Maanen A** et al 2017 - *Effects of melatonin and bright light treatment in childhood chronic sleep onset insomnia with late melatonin onset: A randomized controlled study* Sleep 40(2) PMID: 28364493
- Venkataraman P** et al 2008 - *Protective role of melatonin on PCB (Aroclor 1,254) induced oxidative stress and changes in acetylcholine esterase and membrane bound ATPases in cerebellum, cerebral cortex and hippocampus of adult rat brain* Int J Dev Neurosci 26(6):585-91 PMID: 18555635
- Verkasalo PK** et al 2005 - *Sleep duration and breast cancer: a prospective cohort study* Cancer Res 65(20):9595-600 PMID: 16230426
- Vijayalaxmi** et al 2004 - *Melatonin as a radioprotective agent: a review* Int J Radiat Oncol Biol Phys 59(3):639-53 PMID: 15183467
- Vijayalaxmi** et al 1999 - *Melatonin and protection from whole-body irradiation: survival studies in mice* Mutation Research 425: 21-27 PMID: 10082913
- Vinogradova IA** et al 2008 - *[Effect of light regimens and melatonin on homeostasis, life span and spontaneous tumorigenesis in male rats]* Vopr Onkol 54(1):70-7 PMID: 18416062
- Vinogradova IA** et al 2007 - *[Effect of light regimens and melatonin on the homeostasis, life span and development of spontaneous tumors in female rats]* Adv Gerontol 20(4):40-7 PMID: 18383709
- Vishwas DK** et al 2013 - *Improvement of oxidative stress and immunity by melatonin: An age dependent study in golden hamster* Exp Gerontol 48(2):168-82 PMID: 23220117
- Viswanathan AN & ES Schernhammer** 2008 - *Circulating melatonin and the risk of breast and endometrial cancer in women* Cancer Lett 281(1):1-7 PMID: 19070424
- Vitalini S** et al 2013 - *Melatonin, melatonin isomers and stilbenes in Italian traditional grape products and their antiradical capacity* J Pineal Res 54(3):322-33 PMID: 23171152
- Voiculescu SE** et al 2014 - *Role of melatonin in embryo fetal development* J Med Life 7(4):488-92 PMID: 25713608
- Wada K** et al 2013 - *Associations of urinary 6-sulfatoxymelatonin with demographics, body mass, sex steroids, and lifestyle factors in preschool Japanese children* Ann Epidemiol 23(2):60-5 PMID: 23266102
- Wade A & S Downie** 2008 - *Prolonged-release melatonin for the treatment of insomnia in patients over 55 years* Expert Opin Investig Drugs 17(10):1567-72 PMID: 18808316

- Wakatsuki A** et al 2001 - *Melatonin protects against ischemia/reperfusion-induced oxidative damage to mitochondria in fetal rat brain* J Pineal Res 31(2):167-72 PMID: 11555173
- Wakatsuki A** et al 1999 - *Melatonin protects against ischemia and reperfusion-induced oxidative lipid and DNA damage in fetal rat brain* J Pineal Res 26(3):147-52 PMID: 10231727
- Wang P** et al 2013 - *Long-term exogenous application of melatonin delays drought-induced leaf senescence in apple* J Pineal Res 54(3):292-302 PMID: 23106234
- Wang X** et al 2009 - *Methazolamide and Melatonin Inhibit Mitochondrial Cytochrome C Release and Are Neuroprotective in Experimental Models of Ischemic Injury* Stroke 40(5):1877-85 PMID: 19299628
- Wang Z** et al 2009 - *Melatonin, a potent regulator of hemoxygenase-1, reduces cardiopulmonary bypass-induced renal damage in rats* J Pineal Res 46(3):248-54 PMID: 19317793
- Watanabe K** et al 2004 - *Maternally administered melatonin protects against ischemia and reperfusion-induced oxidative mitochondrial damage in premature fetal rat brain* J Pineal Res 37(4):276-80 PMID: 15485554
- Werbach MR** 2008 - *Melatonin for the treatment of gastroesophageal reflux disease* Altern Ther Health Med 14(4):54-8 PMID: 18616070
- Wideman CH & HM Murphy** 2009 - *Constant light induces alterations in melatonin levels, food intake, feed efficiency, visceral adiposity, and circadian rhythms in rats* Nutr Neurosci 12(5):233-40 PMID: 19761654
- Wirojanan J** et al 2009 - *The efficacy of melatonin for sleep problems in children with autism, fragile X syndrome, or autism and fragile X syndrome* J Clin Sleep Med 5(2):145-50 PMID: 19968048
- Wirtz PH** et al 2008 - *Effect of oral melatonin on the procoagulant response to acute psychosocial stress in healthy men: a randomised placebo-controlled study* J Pineal Res 44(4):358-65 PMID: 18410584
- Wongprayoon P & P Govitrapong** 2017 - *Melatonin as a mitochondrial protector in neurodegenerative diseases* Cell Mol Life Sci 74(21):3999-4014 PMID: 28791420
- Wood AW** et al 2006 - *Does evening exposure to mobile phone radiation affect subsequent melatonin production?* Int J Radiat Biol 82(2):69-76 PMID: 16546905
- Wu AH** et al 2008 - *Sleep duration, melatonin and breast cancer among Chinese women in Singapore* Carcinogenesis 29(6):1244-8 PMID: 18448486
- Wu YH & DF Swaab** 2005 - *The human pineal gland and melatonin in aging and Alzheimer's disease* J Pineal Res 38(3):145-52 PMID: 15725334
- Wyatt JK** et al 2006 - *Sleep-facilitating effect of exogenous melatonin in healthy young men and women is circadian-phase dependent* Sleep 29(5):609-18 PMID: 16774150
- Ximenes VF** et al 2009 - *Oxidation of melatonin by AAPH-derived peroxy radicals: Evidence of a pro-oxidant effect of melatonin* Biochim Biophys Acta 1790(8):787-92 PMID: 19344745
- Xu C** et al 2013 - *Melatonin is involved in the apoptosis and necrosis of pancreatic cancer cell line SW-1990 via modulating of Bcl-2/Bax balance* Biomed Pharmacother 67(2):133-9 PMID: 23245210
- Xu GX** et al 2009 - *[Protective effects of melatonin on cultured human retinal pigment epithelial cells against oxidative damage in vitro]* Zhonghua Yan Ke Za Zhi 45(6):528-32 PMID: 19957676
- Yariktas M** et al 2005 - *Nitric oxide level in the nasal and sinus mucosa after exposure to electromagnetic field* Otolaryngol Head Neck Surg 132(5):713-6 PMID: 15886623
- Yildirim O** et al 2008 - *Preserving effects of melatonin on the levels of glutathione and malondialdehyde in rats exposed to irradiation* Gen Physiol Biophys 27(1):32-7 PMID: 18436981
- Yildiz M & O Akdemir** 2009 - *Assessment of the effects of physiological release of melatonin on arterial distensibility and blood pressure* Cardiol Young 19(2):198-203 PMID: 19267945
- Yildiz M** et al 2006 - *Acute effects of oral melatonin administration on arterial distensibility, as determined by carotid-femoral pulse wave velocity, in healthy young men* Exp Clin Cardiol 11(4):311-3 PMID: 18651024
- Yip HK** et al 2013 - *Melatonin treatment improves adipose-derived mesenchymal stem cell therapy for acute lung ischemia-reperfusion injury* J Pineal Res 54(2):207-21 PMID: 23110436

- Yokoya M** et al 2012 - *Geographical distribution of adolescent body height with respect to effective day length in Japan: an ecological analysis* PloS One 7(12):e50994 PMID: 23227226
- Yu Xet** al 2017 - *Protective roles of melatonin in central nervous system diseases by regulation of neural stem cells* Cell Prolif 50(2) PMID: 27943459
- Yurtçu M** et al 2008 - *Effects of melatonin on spermatogenesis and testicular ischemia-reperfusion injury after unilateral testicular torsion-detorsion* J Pediatr Surg 43(10):1873-8 PMID: 18926224
- Zararsiz I** et al 2007 - *Melatonin prevents formaldehyde-induced neurotoxicity in prefrontal cortex of rats: an immunohistochemical and biochemical study* Cell Biochem Funct 25(4):413-8 PMID: 16397905
- Zararsiz I** et al 2007 - *Protective effect of melatonin against formaldehyde-induced kidney damage in rats* Toxicol Ind Health 23(10):573-9 PMID: 18717515
- Zarazaga LA** et al 2009 - *Nocturnal melatonin concentrations vary dramatically between the two jugular veins in most individual sheep maintained under mimicked or natural photoperiod* Res Vet Sci 88(2):233-8 PMID: 19699498
- Zeitzer JM** et al 1999 - *Do plasma melatonin concentrations decline with age?* Am J Med 107(5):432-6 PMID: 10569297
- Zeman M & I Herichova** 2013 - *Melatonin and clock genes expression in the cardiovascular system* Front Biosci (Schol Ed) S5:743-753 PMID: 23277083
- Zhang JY** et al 2008 - *[Inhibitory effect of melatonin on the expression of nuclear factor-kappaB during acute lung injury in rats]* Zhongguo Wei Zhong Bing Ji Jiu Yi Xue 20(10):604-6 PMID: 18926072
- Zhang QH** et al 2013 - *Melatonin Improves Bladder Symptoms and May Ameliorate Bladder Damage via Increasing HO-1 in Rats* Inflammation 36(3):651-7 PMID: 23250825
- Zheng X** et al 2017 - *Melatonin inhibits glioblastoma stem-like cells through suppression of EZH2-NOTCH1 signaling axis* Int J Biol Sci 13(2):245-253 PMID: 28255276
- Zhernakova NI & SN Rybnikova** 2008 - *[The role of melatonin in pathogenesis of diseases of digestive system]* Klin Med (Mosk) 86(4):14-8 PMID: 18494279
- Zhou W** et al 2009 - *Effect of melatonin on proliferation of neonatal cord blood mononuclear cells* World J Pediatr 5(4):300-3 PMID: 19911147
- Zisapel N** 2009 - *[Controlled release melatonin (Circadin) in the treatment of insomnia in older patients: efficacy and safety in patients with history of use and non-use of hypnotic drugs]* Harefuah 148(5):337-41, 348 PMID: 19630367
- Zwirska-Korczała K** et al 2004 - *Influence of extremely-low-frequency magnetic field on antioxidative melatonin properties in AT478 murine squamous cell carcinoma culture* Biol Trace Elem Res 102(1-3):227-43 PMID: 15621941