

References

[1]

J. Cui, F. Li, Z.-L. Shi **Origin and evolution of pathogenic coronaviruses**
Nat. Rev. Microbiol., 17 (2019), pp. 181-192, [10.1038/s41579-018-0118-9](https://doi.org/10.1038/s41579-018-0118-9)
[CrossRefView Record in ScopusGoogle Scholar](#)

[2]

C. Huang, Y. Wang, X. Li, L. Ren, J. Zhao, Y. Hu, L. Zhang, G. Fan, J. Xu, X. Gu, Z. Cheng, T. Yu, J. Xia, Y. Wei, W. Wu, X. Xie, W. Yin, H. Li, M. Liu, Y. Xiao, H. Gao, L. Guo, J. Xie, G. Wang, R. Jiang, Z. Gao, Q. Jin, J. Wang, B. Cao **Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China**
Lancet (London, England), 395 (2020), pp. 497-506, [10.1016/S0140-6736\(20\)30183-5](https://doi.org/10.1016/S0140-6736(20)30183-5)
[Article](#)
[Download PDFView Record in ScopusGoogle Scholar](#)

[3]

R.J. Reiter, Q. Ma, R. Sharma **Treatment of Ebola and other infectious diseases: melatonin “goes viral”**
Melatonin Res, 3 (2020), pp. 43-57, [10.32794/mr11250047](https://doi.org/10.32794/mr11250047)
[CrossRefView Record in ScopusGoogle Scholar](#)

[4]

X. Wu, H. Ji, Y. Wang, C. Gu, W. Gu, L. Hu, L. Zhu **Melatonin alleviates radiation-induced lung injury via regulation of miR-30e/NLRP3 axis**
Oxidative Med. Cell. Longev., 2019 (2019), p. 4087298, [10.1155/2019/4087298](https://doi.org/10.1155/2019/4087298)
[Google Scholar](#)

[5]

H.-K. Yip, Y.-C. Chang, C.G. Wallace, L.-T. Chang, T.-H. Tsai, Y.-L. Chen, H.-W. Chang, S. Leu, Y.-Y. Zhen, C.-Y. Tsai, K.-H. Yeh, C.-K. Sun, C.-H. Yen **Melatonin treatment improves adipose-derived mesenchymal stem cell therapy for acute lung ischemia-reperfusion injury**
J. Pineal Res., 54 (2013), pp. 207-221, [10.1111/jpi.12020](https://doi.org/10.1111/jpi.12020)
[CrossRefView Record in ScopusGoogle Scholar](#)

[6]

S.-H. Huang, X.-J. Cao, W. Liu, X.-Y. Shi, W. Wei **Inhibitory effect of melatonin on lung oxidative stress induced by respiratory syncytial virus infection in mice**
J. Pineal Res., 48 (2010), pp. 109-116, [10.1111/j.1600-079X.2009.00733.x](https://doi.org/10.1111/j.1600-079X.2009.00733.x)
[View Record in ScopusGoogle Scholar](#)

[7]

N. Chen, M. Zhou, X. Dong, J. Qu, F. Gong, Y. Han, Y. Qiu, J. Wang, Y. Liu, Y. Wei, J. Xia, T. Yu, X. Zhang, L. Zhang **Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study**
Lancet (London, England), 395 (2020), pp. 507-513, [10.1016/S0140-6736\(20\)30211-7](https://doi.org/10.1016/S0140-6736(20)30211-7)
[Article](#)
[Download PDFView Record in ScopusGoogle Scholar](#)

[8]

S. Tian, W. Hu, L. Niu, H. Liu, H. Xu, S. Xiao **Pulmonary Pathology of Early Phase SARS-CoV-2 Pneumonia**
Preprints (Www.Preprints.Org) (2020), [10.20944/preprints202002.0220.v1](https://doi.org/10.20944/preprints202002.0220.v1)
[Epub ahead of print]
[Google Scholar](#)

[9]

Z. Xu, L. Shi, Y. Wang, J. Zhang, L. Huang, C. Zhang, S. Liu, P. Zhao, H. Liu, L. Zhu, Y. Tai, C. Bai, T. Gao, J. Song, P. Xia, J. Dong, J. Zhao, F.-S. Wang **Pathological findings of COVID-19 associated with acute respiratory distress syndrome**
Lancet Respir. Med. (2020), [10.1016/S2213-2600\(20\)30076-X](https://doi.org/10.1016/S2213-2600(20)30076-X)

Epub ahead of print

[Google Scholar](#)

[10]

J. Liu, X. Zheng, Q. Tong, W. Li, B. Wang, K. Sutter, M. Trilling, M. Lu, U. Dittmer, D. Yang **Overlapping and discrete aspects of the pathology and pathogenesis of the emerging human pathogenic coronaviruses SARS-CoV, MERS-CoV, and 2019-nCoV**
J. Med. Virol. (2020), [10.1002/jmv.25709](#)

Epub ahead of print

[Google Scholar](#)

[11]

J. Chen **Pathogenicity and transmissibility of 2019-nCoV-A quick overview and comparison with other emerging viruses**

Microbes Infect. (2020), [10.1016/j.micinf.2020.01.004](#)

[Google Scholar](#)

[12]

L.-L. Ren, Y.-M. Wang, Z.-Q. Wu, Z.-C. Xiang, L. Guo, T. Xu, Y.-Z. Jiang, Y. Xiong, Y.-J. Li, X.-W. Li, H. Li, G.-H. Fan, X.-Y. Gu, Y. Xiao, H. Gao, J.-Y. Xu, F. Yang, X.-M. Wang, C. Wu, L. Chen, Y.-W. Liu, B. Liu, J. Yang, X.-R. Wang, J. Dong, L. Li, C.-L. Huang, J.-P. Zhao, Y. Hu, Z.-S. Cheng, L.-L. Liu, Z.-H. Qian, C. Qin, Q. Jin, B. Cao, J.-W.

Identification of a novel coronavirus causing severe pneumonia in human: a descriptive study

Chin. Med. J. (2020), [10.1097/CM9.0000000000000722](#)

Epub ahead of print

[Google Scholar](#)

[13]

R. Channappanavar, S. Perlman **Pathogenic human coronavirus infections: causes and consequences of cytokine storm and immunopathology**

Semin. Immunopathol., 39 (2017), pp. 529-539, [10.1007/s00281-017-0629-x](#)

[CrossRefView Record in ScopusGoogle Scholar](#)

[14]

C.Y. Cheung, L.L.M. Poon, I.H.Y. Ng, W. Luk, S.-F. Sia, M.H.S. Wu, K.-H. Chan, K.-Y. Yuen, S. Gordon, Y. Guan, J.S.M. Peiris **Cytokine responses in severe acute respiratory syndrome coronavirus-infected macrophages in vitro: possible relevance to pathogenesis**

J. Virol., 79 (2005), pp. 7819-7826, [10.1128/JVI.79.12.7819-7826.2005](#)

[View Record in ScopusGoogle Scholar](#)

[15]

H.K.W. Law, C.Y. Cheung, H.Y. Ng, S.F. Sia, Y.O. Chan, W. Luk, J.M. Nicholls, J.S.M. Peiris, Y.L. Lau **Chemokine up-regulation in SARS-coronavirus-infected, monocyte-derived human dendritic cells**

Blood, 106 (2005), pp. 2366-2374, [10.1182/blood-2004-10-4166](#)

[CrossRefView Record in ScopusGoogle Scholar](#)

[16]

H. Chu, J. Zhou, B.H.-Y. Wong, C.C. Li, J.F.-W. Chan, Z.-S. Cheng, D. Yang, D. Wang, A.C.-Y. Lee, C.C. Li, M.-L. Yeung, J.-P. Cai, I.H.-Y. Chan, W.-K. Ho, K.K.-W. To, B.-J. Zheng, Y. Yao, C. Qin, K.-Y. Yuen **Middle east respiratory syndrome coronavirus efficiently infects human primary T lymphocytes and activates the extrinsic and intrinsic apoptosis pathways**

J. Infect. Dis., 213 (2016), pp. 904-914, [10.1093/infdis/jiv380](#)

[CrossRefView Record in ScopusGoogle Scholar](#)

[17]

A.R. Fehr, R. Channappanavar, G. Jankevicius, C. Fett, J. Zhao, J. Athmer, D.K. Meyerholz, I. Ahel, S. Perlman **The conserved coronavirus macrodomain promotes virulence and**

suppresses the innate immune response during severe acute respiratory syndrome coronavirus infection

MBio, 7 (2016), [10.1128/mBio.01721-16](https://doi.org/10.1128/mBio.01721-16)

[Google Scholar](#)

[18]

J.-Y. Chien, P.-R. Hsueh, W.-C. Cheng, C.-J. Yu, P.-C. Yang **Temporal changes in cytokine/chemokine profiles and pulmonary involvement in severe acute respiratory syndrome**

Respirology (Carlton, Vic.), 11 (2006), pp. 715-722, [10.1111/j.1440-1843.2006.00942.x](https://doi.org/10.1111/j.1440-1843.2006.00942.x)

[CrossRefView Record in ScopusGoogle Scholar](#)

[19]

R. Channappanavar, A.R. Fehr, R. Vijay, M. Mack, J. Zhao, D.K. Meyerholz, S. Perlman **Dysregulated type I interferon and inflammatory monocyte-macrophage responses cause lethal pneumonia in SARS-CoV-infected mice**

Cell Host Microbe, 19 (2016), pp. 181-193, [10.1016/j.chom.2016.01.007](https://doi.org/10.1016/j.chom.2016.01.007)

[Article](#)

[Download PDFView Record in ScopusGoogle Scholar](#)

[20]

S.L. Smits, A. de Lang, J.M.A. van den Brand, L.M. Leijten, W.F. van IJcken, M.J.C. Eijkemans, G. van Amerongen, T. Kuiken, A.C. Andeweg, A.D.M.E. Osterhaus, B.L. Haagmans **Exacerbated innate host response to SARS-CoV in aged non-human primates**

PLoS Pathog., 6 (2010), Article e1000756–e1000756, [10.1371/journal.ppat.1000756](https://doi.org/10.1371/journal.ppat.1000756)

[Google Scholar](#)

[21]

A. Junaid, H. Tang, A. van Reeuwijk, Y. Abouleila, P. Wuelfroth, V. van Duinen, W. Stam, A.J. van Zonneveld, T. Hankemeier, A. Mashaghi **Ebola hemorrhagic shock syndrome-on-a-chip**

IScience, 23 (2020), Article 100765, [10.1016/j.isci.2019.100765](https://doi.org/10.1016/j.isci.2019.100765)

[Article](#)

[Download PDFGoogle Scholar](#)

[22]

J.A. Boga, A. Coto-Montes, S.A. Rosales-Corral, D.-X. Tan, R.J. Reiter **Beneficial actions of melatonin in the management of viral infections: a new use for this “molecular handyman”?**

Rev. Med. Virol., 22 (2012), pp. 323-338, [10.1002/rmv.1714](https://doi.org/10.1002/rmv.1714)

[CrossRefView Record in ScopusGoogle Scholar](#)

[23]

G. Anderson, M. Maes, R.P. Markus, M. Rodriguez **Ebola virus: melatonin as a readily available treatment option**

J. Med. Virol., 87 (2015), pp. 537-543, [10.1002/jmv.24130](https://doi.org/10.1002/jmv.24130)

[CrossRefView Record in ScopusGoogle Scholar](#)

[24]

R.J. Reiter, Q. Ma, R. Sharma **Melatonin in mitochondria: mitigating clear and present dangers**

Physiology (Bethesda), 35 (2020), pp. 86-95, [10.1152/physiol.00034.2019](https://doi.org/10.1152/physiol.00034.2019)

[CrossRefView Record in ScopusGoogle Scholar](#)

[25]

D. Ben-Nathan, G.J. Maestroni, S. Lustig, A. Conti **Protective effects of melatonin in mice infected with encephalitis viruses**

Arch. Virol., 140 (1995), pp. 223-230, [10.1007/bf01309858](https://doi.org/10.1007/bf01309858)

[View Record in ScopusGoogle Scholar](#)

[26]

R. Hardeland **Melatonin and inflammation-story of a double-edged blade**

- J. Pineal Res., 65 (2018), p. e12525, [10.1111/jpi.12525](https://doi.org/10.1111/jpi.12525)
[CrossRefGoogle Scholar](#)
- [27] Q.-L. Wang, L. Yang, Y. Peng, M. Gao, M.-S. Yang, W. Xing, X.-Z. Xiao **Ginsenoside Rg1 regulates SIRT1 to ameliorate sepsis-induced lung inflammation and injury via inhibiting endoplasmic reticulum stress and inflammation**
Mediat. Inflamm., 2019 (2019), p. 6453296, [10.1155/2019/6453296](https://doi.org/10.1155/2019/6453296)
[Google Scholar](#)
- [28] C.-K. Sun, F.-Y. Lee, Y.-H. Kao, H.-J. Chiang, P.-H. Sung, T.-H. Tsai, Y.-C. Lin, S. Leu, Y.-C. Wu, H.-I. Lu, Y.-L. Chen, S.-Y. Chung, H.-L. Su, H.-K. Yip **Systemic combined melatonin-mitochondria treatment improves acute respiratory distress syndrome in the rat**
J. Pineal Res., 58 (2015), pp. 137-150, [10.1111/jpi.12199](https://doi.org/10.1111/jpi.12199)
[CrossRefView Record in ScopusGoogle Scholar](#)
- [29] Y. Ling, Z.-Z. Li, J.-F. Zhang, X.-W. Zheng, Z.-Q. Lei, R.-Y. Chen, J.-H. Feng **MicroRNA-494 inhibition alleviates acute lung injury through Nrf2 signaling pathway via NQO1 in sepsis-associated acute respiratory distress syndrome**
Life Sci., 210 (2018), pp. 1-8, [10.1016/j.lfs.2018.08.037](https://doi.org/10.1016/j.lfs.2018.08.037)
[Article](#)
[Download PDFCrossRefView Record in ScopusGoogle Scholar](#)
- [30] A.M. da C. Pedrosa, R. Weinlich, G.P. Mognol, B.K. Robbs, J.P. de B. Viola, A. Campa, G.P. Amarante-Mendes **Melatonin protects CD4+ T cells from activation-induced cell death by blocking NFAT-mediated CD95 ligand upregulation**
J. Immunol (Baltimore, Md.: 1950), 184 (2010), pp. 3487-3494, [10.4049/jimmunol.0902961](https://doi.org/10.4049/jimmunol.0902961)
[CrossRefView Record in ScopusGoogle Scholar](#)
- [31] Y. Shang, S.-P. Xu, Y. Wu, Y.-X. Jiang, Z.-Y. Wu, S.-Y. Yuan, S.-L. Yao **Melatonin reduces acute lung injury in endotoxemic rats**
Chin. Med. J., 122 (2009), pp. 1388-1393
[View Record in ScopusGoogle Scholar](#)
- [32] Z. Ahmadi, M. Ashrafizadeh **Melatonin as a potential modulator of Nrf2**
Fund. Clin. Pharmacol., 34 (2020), pp. 11-19, [10.1111/fcp.12498](https://doi.org/10.1111/fcp.12498)
[CrossRefView Record in ScopusGoogle Scholar](#)
- [33] S. Habtemariam, M. Daglia, A. Sureda, Z. Selamoglu, M.F. Gulhan, S.M. Nabavi **Melatonin and respiratory diseases: a review**
Curr. Top. Med. Chem., 17 (2017), pp. 467-488, [10.2174/1568026616666160824120338](https://doi.org/10.2174/1568026616666160824120338)
[View Record in ScopusGoogle Scholar](#)
- [34] R. Hardeland **Ageing, melatonin, and the pro- and anti-inflammatory networks**
Int. J. Mol. Sci., 20 (2019), [10.3390/ijms20051223](https://doi.org/10.3390/ijms20051223)
[Google Scholar](#)
- [35] L. Carrascal, P. Nunez-Abades, A. Ayala, M. Cano **Role of melatonin in the inflammatory process and its therapeutic potential**
Curr. Pharm. Design., 24 (2018), pp. 1563-1588, [10.2174/1381612824666180426112832](https://doi.org/10.2174/1381612824666180426112832)
[View Record in ScopusGoogle Scholar](#)
- [36] Y. Imai, K. Kuba, G.G. Neely, R. Yaghubian-Malhami, T. Perkmann, G. van Loo, M. Ermolaeva, R. Veldhuizen, Y.H.C. Leung, H. Wang, H. Liu, Y. Sun, M. Pasparakis, M.

Kopf, C. Mech, S. Bavari, J.S.M. Peiris, A.S. Slutsky, S. Akira, M. Hultqvist, R. Holmdahl, J. Nicholls, C. Jiang, C.J. Binder, J.M. Penninger **Identification of oxidative stress and Toll-like receptor 4 signaling as a key pathway of acute lung injury** Cell, 133 (2008), pp. 235-249, [10.1016/j.cell.2008.02.043](https://doi.org/10.1016/j.cell.2008.02.043)

[Article](#)

[Download PDF](#) [View Record in Scopus](#) [Google Scholar](#)

[37]

Y. Zhao, H. Wang, W. Chen, L. Chen, D. Liu, X. Wang, X. Wang **Melatonin attenuates white matter damage after focal brain ischemia in rats by regulating the TLR4/NF-kappaB pathway**

Brain Res. Bull., 150 (2019), pp. 168-178, [10.1016/j.brainresbull.2019.05.019](https://doi.org/10.1016/j.brainresbull.2019.05.019)

[Article](#)

[Download PDF](#) [View Record in Scopus](#) [Google Scholar](#)

[38]

J. Luo, J. Song, H. Zhang, F. Zhang, H. Liu, L. Li, Z. Zhang, L. Chen, M. Zhang, D. Lin, M. Lin, R. Zhou **Melatonin mediated Foxp3-downregulation decreases cytokines production via the TLR2 and TLR4 pathways in H. pylori infected mice** Int. Immunopharmacol., 64 (2018), pp. 116-122, [10.1016/j.intimp.2018.08.034](https://doi.org/10.1016/j.intimp.2018.08.034)

[Article](#)

[Download PDF](#) [View Record in Scopus](#) [Google Scholar](#)

[39]

T.-Y. Renn, Y.-K. Huang, S.-W. Feng, H.-W. Wang, W.-F. Lee, C.-T. Lin, T. Burnouf, L.-Y. Chen, P.-F. Kao, H.-M. Chang **Prophylactic supplement with melatonin successfully suppresses the pathogenesis of periodontitis through normalizing RANKL/OPG ratio and depressing the TLR4/MyD88 signaling pathway**

J. Pineal Res., 64 (2018), [10.1111/jpi.12464](https://doi.org/10.1111/jpi.12464)

[Google Scholar](#)

[40]

H.-H. Chen, C.-L. Chang, K.-C. Lin, P.-H. Sung, H.-T. Chai, Y.-Y. Zhen, Y.-C. Chen, Y.-C. Wu, S. Leu, T.-H. Tsai, C.-H. Chen, H.-W. Chang, H.-K. Yip **Melatonin augments apoptotic adipose-derived mesenchymal stem cell treatment against sepsis-induced acute lung injury**

Am. J. Transl. Res., 6 (2014), pp. 439-458

[View Record in Scopus](#) [Google Scholar](#)

[41]

M.-L. Wang, C.-H. Wei, W.-D. Wang, J.-S. Wang, J. Zhang, J.-J. Wang **Melatonin attenuates lung ischaemia-reperfusion injury via inhibition of oxidative stress and inflammation**

Interact. Cardio. Th., 26 (2018), pp. 761-767, [10.1093/icvts/ivx440](https://doi.org/10.1093/icvts/ivx440)

[View Record in Scopus](#) [Google Scholar](#)

[42]

D.Y. Tamura, E.E. Moore, D.A. Partrick, J.L. Johnson, P.J. Offner, C.C. Silliman **Acute hypoxemia in humans enhances the neutrophil inflammatory response**

Shock (Augusta, Ga.), 17 (2002), pp. 269-273, [10.1097/00024382-200204000-00005](https://doi.org/10.1097/00024382-200204000-00005)

[View Record in Scopus](#) [Google Scholar](#)

[43]

J.V. Sarma, P.A. Ward **Oxidants and redox signaling in acute lung injury**

Compr. Physiol., 1 (2011), pp. 1365-1381, [10.1002/cphy.c100068](https://doi.org/10.1002/cphy.c100068)

[View Record in Scopus](#) [Google Scholar](#)

[44]

E. Gitto, R.J. Reiter, G. Sabatino, G. Buonocore, C. Romeo, P. Gitto, C. Buggé, G. Trimarchi, I. Barberi **Correlation among cytokines, bronchopulmonary dysplasia and modality of ventilation in preterm newborns: improvement with melatonin treatment** J. Pineal Res., 39 (2005), pp. 287-293, [10.1111/j.1600-079X.2005.00251.x](https://doi.org/10.1111/j.1600-079X.2005.00251.x)

[View Record in Scopus](#)[Google Scholar](#)

[45]

E. Gitto, R.J. Reiter, S.P. Cordaro, R.M. La, P. Chiurazzi, G. Trimarchi, P. Gitto, M.P. Calabrò, I. Barberi **Oxidative and inflammatory parameters in respiratory distress syndrome of preterm newborns: beneficial effects of melatonin**
Am. J. Perinatol., 21 (2004), pp. 209-216, [10.1055/s-2004-828610](#)

[View Record in Scopus](#)[Google Scholar](#)

[46]

M.C. Rogers, J.V. Williams **Quis Custodiet Ipsos Custodes? Regulation of cell-mediated immune responses following viral lung infections**

Annu. Rev. Virol., 5 (2018), pp. 363-383, [10.1146/annurev-virology-092917-043515](#)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[47]

C.-Y. Yang, C.-S. Chen, G.-T. Yiang, Y.-L. Cheng, S.-B. Yong, M.-Y. Wu, C.-J. Li **New insights into the immune molecular regulation of the pathogenesis of acute respiratory distress syndrome**

Int. J. Mol. Sci., 19 (2018), [10.3390/ijms19020588](#)

[Google Scholar](#)

[48]

Y. Liu, Y. Yang, C. Zhang, F. Huang, F. Wang, J. Yuan, Z. Wang, J. Li, J. Li, C. Feng, Z. Zhang, L. Wang, L. Peng, L. Chen, Y. Qin, D. Zhao, S. Tan, L. Yin, J. Xu, C. Zhou, C. Jiang, L. Liu **Clinical and biochemical indexes from 2019-nCoV infected patients linked to viral loads and lung injury**

Sci. China Life Sci. (2020), [10.1007/s11427-020-1643-8](#)

[Google Scholar](#)

[49]

S.C. Miller, S.R. Pandi-Perumal, A.I. Esquifino, D.P. Cardinali, G.J.M. Maestroni **The role of melatonin in immuno-enhancement: potential application in cancer**

Int. J. Exp. Pathol., 87 (2006), pp. 81-87, [10.1111/j.0959-9673.2006.00474.x](#)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[50]

C. Kaur, E.A. Ling **Effects of melatonin on macrophages/microglia in postnatal rat brain**

J. Pineal Res., 26 (1999), pp. 158-168, [10.1111/j.1600-079x.1999.tb00578.x](#)

[View Record in Scopus](#)[Google Scholar](#)

[51]

M.D. Tate, J.D.H. Ong, J.K. Dowling, J.L. McAuley, A.B. Robertson, E. Latz, G.R.

Drummond, M.A. Cooper, P.J. Hertzog, A. Mansell **Reassessing the role of the NLRP3 inflammasome during pathogenic influenza a virus infection via temporal inhibition**

Sci. Rep., 6 (2016), p. 27912, [10.1038/srep27912](#)

[Google Scholar](#)

[52]

C. Shen, Z. Zhang, T. Xie, J. Ji, J. Xu, L. Lin, J. Yan, A. Kang, Q. Dai, Y. Dong, J. Shan, S. Wang, X. Zhao **Rhein suppresses lung inflammatory injury induced by human respiratory syncytial virus through inhibiting NLRP3 inflammasome activation via NF-kappaB pathway in mice**

Front. Pharmacol., 10 (2019), p. 1600, [10.3389/fphar.2019.01600](#)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[53]

S.H.J. Mei, S.D. McCarter, Y. Deng, C.H. Parker, W.C. Liles, D.J. Stewart **Prevention of LPS-induced acute lung injury in mice by mesenchymal stem cells overexpressing angiotensin 1**

PLoS Med., 4 (2007), p. e269, [10.1371/journal.pmed.0040269](#)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[54]

H.-M. Wu, Q.-M. Xie, C.-C. Zhao, J. Xu, X.-Y. Fan, G.-H. Fei **Melatonin biosynthesis restored by CpG oligodeoxynucleotides attenuates allergic airway inflammation via regulating NLRP3 inflammasome**

Life Sci., 239 (2019), p. 117067, [10.1016/j.lfs.2019.117067](https://doi.org/10.1016/j.lfs.2019.117067)

[Article](#)

[Download PDF](#)[Google Scholar](#)

[55]

Y. Zhang, X.X. Li, J.J. Grailer, N. Wang, M. Wang, J. Yao, R. Zhong, G.F. Gao, P.A. Ward, D.-X. Tan, X.X. Li **Melatonin alleviates acute lung injury through inhibiting the NLRP3 inflammasome**

J. Pineal Res., 60 (2016), pp. 405-414, [10.1111/jpi.12322](https://doi.org/10.1111/jpi.12322)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[56]

H. Bazayar, H. Gholinezhad, L. Moradi, P. Salehi, F. Abadi, M. Ravanbakhsh, A. Zare Javid **The effects of melatonin supplementation in adjunct with non-surgical periodontal therapy on periodontal status, serum melatonin and inflammatory markers in type 2 diabetes mellitus patients with chronic periodontitis: a double-blind, placebo-controlled trial**

Inflammopharmacology, 27 (2019), pp. 67-76, [10.1007/s10787-018-0539-0](https://doi.org/10.1007/s10787-018-0539-0)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[57]

A.L. Sanchez-Lopez, G.G. Ortiz, F.P. Pacheco-Moises, M.A. Mireles-Ramirez, O.K. Bitzer-Quintero, D.L.C. Delgado-Lara, L.J. Ramirez-Jirano, I.E. Velazquez-Brizuela **Efficacy of melatonin on serum pro-inflammatory cytokines and oxidative stress markers in relapsing remitting multiple sclerosis**

Arch. Med. Res., 49 (2018), pp. 391-398, [10.1016/j.arcmed.2018.12.004](https://doi.org/10.1016/j.arcmed.2018.12.004)

[Article](#)

[Download PDF](#)[View Record in Scopus](#)[Google Scholar](#)

[58]

B. Kucukakin, J. Lykkesfeldt, H.J. Nielsen, R.J. Reiter, J. Rosenberg, I. Gogenur **Utility of melatonin to treat surgical stress after major vascular surgery—a safety study**

J. Pineal Res., 44 (2008), pp. 426-431, [10.1111/j.1600-079X.2007.00545.x](https://doi.org/10.1111/j.1600-079X.2007.00545.x)

[View Record in Scopus](#)[Google Scholar](#)

[59]

Z. Zhao, C. Lu, T. Li, W. Wang, W. Ye, R. Zeng, L. Ni, Z. Lai, X. Wang, C. Liu **The protective effect of melatonin on brain ischemia and reperfusion in rats and humans: in vivo assessment and a randomized controlled trial**

J. Pineal Res., 65 (2018), p. e12521, [10.1111/jpi.12521](https://doi.org/10.1111/jpi.12521)

[CrossRef](#)[Google Scholar](#)

[60]

E. Shafiei, M. Bahtoei, P. Raj, A. Ostovar, D. Iranpour, S. Akbarzadeh, H. Shahryari, A. Anvaripour, R. Tahmasebi, T. Neticadan, A. Movahed **Effects of N-acetyl cysteine and melatonin on early reperfusion injury in patients undergoing coronary artery bypass grafting: a randomized, open-labeled, placebo-controlled trial**

Medicine., 97 (2018), p. e11383, [10.1097/MD.00000000000011383](https://doi.org/10.1097/MD.00000000000011383)

[CrossRef](#)[Google Scholar](#)

[61]

M. Zarezadeh, M. Khorshidi, M. Emami, P. Janmohammadi, H. Kord-Varkaneh, S.M. Mousavi, S.H. Mohammed, A. Saedisomeolia, S. Alizadeh **Melatonin supplementation and pro-inflammatory mediators: a systematic review and meta-analysis of clinical trials**

Eur. J. Nutr. (2019), [10.1007/s00394-019-02123-0](https://doi.org/10.1007/s00394-019-02123-0)

[Epub ahead of print]

[Google Scholar](#)

[62]

J. Cheng, H.-L. Yang, C.-J. Gu, Y.-K. Liu, J. Shao, R. Zhu, Y.-Y. He, X.-Y. Zhu, M.-Q. Li **Melatonin restricts the viability and angiogenesis of vascular endothelial cells by suppressing HIF-1 α /ROS/VEGF**

Int. J. Mol. Med., 43 (2019), pp. 945-955, [10.3892/ijmm.2018.4021](https://doi.org/10.3892/ijmm.2018.4021)

[View Record in Scopus](#)[Google Scholar](#)

[63]

H. Volt, J.A. Garcia, C. Doerrier, M.E. Diaz-Casado, A. Guerra-Librero, L.C. Lopez, G. Escames, J.A. Tresguerres, D. Acuna-Castroviejo **Same molecule but different expression: aging and sepsis trigger NLRP3 inflammasome activation, a target of melatonin**

J. Pineal Res., 60 (2016), pp. 193-205, [10.1111/jpi.12303](https://doi.org/10.1111/jpi.12303)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[64]

W. Dai, H. Huang, L. Si, S. Hu, L. Zhou, L. Xu, Y. Deng **Melatonin prevents sepsis-induced renal injury via the PINK1/Parkin1 signaling pathway**

Int. J. Mol. Med., 44 (2019), pp. 1197-1204, [10.3892/ijmm.2019.4306](https://doi.org/10.3892/ijmm.2019.4306)

[View Record in Scopus](#)[Google Scholar](#)

[65]

J. Zhang, L. Wang, W. Xie, S. Hu, H. Zhou, P. Zhu, H. Zhu **Melatonin attenuates ER stress and mitochondrial damage in septic cardiomyopathy: a new mechanism involving BAP31 upregulation and MAPK-ERK pathway**

J. Cell. Physiol., 235 (2020), pp. 2847-2856, [10.1002/jcp.29190](https://doi.org/10.1002/jcp.29190)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[66]

J. Chen, H. Xia, L. Zhang, H. Zhang, D. Wang, X. Tao **Protective effects of melatonin on sepsis-induced liver injury and dysregulation of gluconeogenesis in rats through activating SIRT1/STAT3 pathway**

Biomed. Pharmacother., 117 (2019), p. 109150, [10.1016/j.biopha.2019.109150](https://doi.org/10.1016/j.biopha.2019.109150)

[Article](#)

[Download PDF](#)[Google Scholar](#)

[67]

F. Nduhirabandi, K. Lamont, Z. Albertyn, L.H. Opie, S. Lecour **Role of toll-like receptor 4 in melatonin-induced cardioprotection**

J. Pineal Res., 60 (2016), pp. 39-47, [10.1111/jpi.12286](https://doi.org/10.1111/jpi.12286)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[68]

S. Tordjman, S. Chokron, R. Delorme, A. Charrier, E. Bellissant, N. Jaafari, C. Fougere **Melatonin: pharmacology, functions and therapeutic benefits**

Curr. Neuropharmacol., 15 (2017), pp. 434-443, [10.2174/1570159X14666161228122115](https://doi.org/10.2174/1570159X14666161228122115)

[CrossRef](#)[View Record in Scopus](#)[Google Scholar](#)

[69]

K. Lewandowska, M.A. Malkiewicz, M. Sieminski, W.J. Cubala, P.J. Winklewski, W.A. Medrzycka-Dabrowska **The role of melatonin and melatonin receptor agonist in the prevention of sleep disturbances and delirium in intensive care unit - a clinical review**

Sleep Med., 69 (2020), pp. 127-134, [10.1016/j.sleep.2020.01.019](https://doi.org/10.1016/j.sleep.2020.01.019)

[Article](#)

[Download PDF](#)[View Record in Scopus](#)[Google Scholar](#)

[70]

G. Mistraletti, M. Umbrello, G. Sabbatini, S. Miori, M. Taverna, B. Cerri, E.S. Mantovani, P. Formenti, P. Spanu, A. D'Agostino, S. Salini, A. Morabito, F. Frascini, R.J. Reiter, G. Iapichino **Melatonin reduces the need for sedation in ICU patients: a randomized controlled trial**

Minerva Anestesiol., 81 (2015), pp. 1298-1310

[View Record in Scopus](#)[Google Scholar](#)

[71]

S.R. Lewis, M.W. Pritchard, O.J. Schofield-Robinson, P. Alderson, A.F. Smith **Melatonin for the promotion of sleep in adults in the intensive care unit**
The Cochrane Database of Syst. Rev., 5 (2018), p. CD012455, [10.1002/14651858.CD012455.pub2](https://doi.org/10.1002/14651858.CD012455.pub2)
[Google Scholar](#)

[72]

L.P.H. Andersen, I. Gogenur, J. Rosenberg, R.J. Reiter **The safety of melatonin in humans**
Clin. Drug Investig., 36 (2016), pp. 169-175, [10.1007/s40261-015-0368-5](https://doi.org/10.1007/s40261-015-0368-5)
[CrossRefView Record in ScopusGoogle Scholar](#)

[73]

R.S. Bourne, G.H. Mills, C. Minelli **Melatonin therapy to improve nocturnal sleep in critically ill patients: encouraging results from a small randomised controlled trial**
Crit. Care (London, England), 12 (2008), p. R52, [10.1186/cc6871](https://doi.org/10.1186/cc6871)
[CrossRefView Record in ScopusGoogle Scholar](#)

[74]

G. Mistraletti, G. Sabbatini, M. Taverna, M.A. Figini, M. Umbrello, P. Magni, M. Ruscica, E. Dozio, R. Esposti, G. DeMartini, F. Fraschini, R. Rezzani, R.J. Reiter, G. Iapichino **Pharmacokinetics of orally administered melatonin in critically ill patients**
J. Pineal Res., 48 (2010), pp. 142-147, [10.1111/j.1600-079X.2009.00737.x](https://doi.org/10.1111/j.1600-079X.2009.00737.x)
[View Record in ScopusGoogle Scholar](#)

[75]

J.J. Nordlund, A.B. Lerner **The effects of oral melatonin on skin color and on the release of pituitary hormones**
J. Clin. Endocrinol. Metab., 45 (1977), pp. 768-774, [10.1210/jcem-45-4-768](https://doi.org/10.1210/jcem-45-4-768)