

三羽研究室における水素医療・水素美容の国際学術誌掲載原著

米国国立医学図書館が提供する医学文献データベース「PubMed」掲載の水素医療・水素美容に関する国際学術誌原著は世界各国で約2,011論文、日本だけで約284論文。内、三羽研究室執筆は計29論文、日本の上位トップ1の論文数を誇る。

※Pubmed検索による一例（計29論文、2022年8月30日現在）

水素水の抗がん・がん転移/浸潤抑制効果とメカニズム

(21) Carcinostatic effects of alkanoyl ascorbate plus platinum nano-colloid and stabilization of the esterolytically resultant ascorbate by hydrogen.

Kato S, Saitoh Y, Miwa N. Human Cell. 2021 Mar;34(2):436-444.

(19) Hydrogen-bubbled platinum-colloid suppresses human esophagus- or tongue-carcinoma cells with intracellular platinum-uptake and the diminished normal-cell mortality.

Kato S, Saitoh Y, Miwa N. Human Cell. 2020 Oct;33(4):1294-1301.

(10) Transient generation of hydrogen peroxide is responsible for carcinostatic effects of hydrogen combined with platinum nanocolloid, together with increases intracellular ROS, DNA cleavages, and proportion of G2/M-phase.

Saitoh Y, Ikeshima M, …, Miwa N. Free Radical Research. 2016 Apr;50(4):385-395.

(04) Antitumor effects of nano-bubble hydrogen-dissolved water are enhanced by coexistent platinum colloid and the combined hyperthermia with apoptosis-like cell death.

Asada R, Kageyama K, …, Miwa N. Oncology Report, 2010, 24: pp.1463-1470.

(02) Platinum-supplemented hydrogen-dissolved water inhibits growth of human tongue carcinoma cells preferentially over normal cells.

Saitoh, Y; Yoshimura, Y, …, Miwa, N. Experimental Oncology, 2009, 31: pp.156-162.

(01) Neutral-pH hydrogen-enriched electrolyzed water achieves tumor-preferential clonal-growth-inhibition over normal cells and tumor-invasion inhibition concurrently with intracellular oxidant repression

Saitoh Y, Okayasu H, …, Miwa N. Oncolgy Research, 2008, 17: pp.247-255.

水素水によるアルコール由来毒性物質への解毒力

(11) The hydrogen-storing microporous silica ‘Microcluster’ reduces acetaldehyde contained in a distilled spirit

S Kato, N Miwa. Materials Science & Engineering C Material Biological Application, 2016, 69:117–121.

水素水のシミ・シワ抑制/コラーゲン構築/皮膚乾燥障害防御/毛穴角栓除去効果

(28) Repetitive Bathing and Skin Poultice with Hydrogen-Rich Water Improve Wrinkles and Blotches Together with Modulation of Skin Oiliness and Moisture

Tanaka Y, Miwa N. Hydrogen (Basel) 2022, 3(2), 161-178; <https://doi.org/10.3390/hydrogen3020011>.

(26) Hydrogen-Rich Water Prevents Dehydration-Induced Cellular Oxidative Stress and Cell Death in Human Skin Keratinocytes

Xiao L, Miwa N. *Hydrogen (Basel)* 2022, 3(1), 62-71; <https://doi.org/10.3390/hydrogen3010005>

(23) Hydrogen-Generating Silica Material Prevents UVA-ray-Induced Cellular Oxidative Stress, Cell Death, Collagen Loss and Melanogenesis in Human Cells and 3D Skin Equivalents.

Xiao L, Mochizuki M, …, Miwa N. *Antioxidants (Basel)*. 2021 Jan 8;10(1):76.

(17) Effects of hydrogen-rich water bath on visceral fat and skin blotch, with boiling-resistant hydrogen bubbles.

Asada R, Saitoh Y, Miwa N. *Medical Gas Research*. 2019 Apr-Jun; 9(2): 68-73.

(15) Electrolytically generated hydrogen warm water cleanses the keratin-plug-clogged hair-pores and promotes the capillary blood-streams, more markedly than normal warm water does.

Tanaka Y, Saitoh Y, Miwa N. *Medical Gas Research*. 2018 Apr 18;8(1):12-18.

(07) Inhibitions by hydrogen-occluding silica microcluster to melanogenesis in human pigment cells and tyrosinase reaction.

S Kato, Y Saitoh, N Miwa. *Journal of Nanoscience and Nanotechnology*, 2013 Jan;13(1):52-59.

(05) Hydrogen-rich electrolyzed warm water represses wrinkle formation against UVA ray together with type-I collagen production and oxidative-stress diminishment in fibroblasts and cell-injury prevention in keratinocytes.

Kato S, Saitoh Y, …, Miwa N. *Journal of Photochemistry & Photobiology, B: Biology*, 2012, 106: pp.24-33.

水素飲水による唾液の還元力増強効果、水素生成量の水硬度依存性

(20) Dependencies of hydrogen-water on mineral-based hardness, temperatures and the container materials, and effects of the oral washing and drinking.

Tanaka Y, Teraoka F, …, Miwa N. *Medical Gas Research*. 2020 Apr-Jun;10(2):67-74.

水素水による床ずれ・歯肉細胞/食道細胞傷害への修復効果

(16) Effects of hydrogen-occluding-silica microparticles on wound repair and cell migratory behavior of normal human esophageal epitheliocytes.

Li Q, Tanaka Y, Miwa N. *Medical Gas Research*. 2018 Jul 3;8(2):57-63.

(14) Influence of hydrogen-occluding-silica on migration and apoptosis in human esophageal cells in vitro.

Q Li, Y Tanaka, N Miwa, *Medical Gas Research*, 2017, 30:7(2): 76-85.

(13) Fundamental insight into the methodology of hydrogen water in biological studies.

Q Li, R Asada, …, N Miwa. *Journal of Nanosciences & Nanotechnology*, 2016, 17(7): 5134-5136.

(12) Hydrogen-rich water achieves cytoprotection from oxidative stress injury in human gingival fibroblasts in culture or 3D-tissue equivalents, and wound-healing promotion, together with ROS-scavenging and relief from glutathione diminishment .

L Xiao, N Miwa. *Human Cell*. 2017 30(2): 72-87.

(08) Hydrogen water intake via tube-feeding for patients with pressure ulcer and its reconstructive effects on normal human skin cells in vitro.

Li Q, Kato S, …, Miwa N. *Medical Gas Research* 2013 Sep 10;3(1):20. doi: 10.1186/2045-9912-3-20.

水素飲水の安全性/有害物質の排除

(24) Electrolytic hydrogen-generating bottle supplies drinking water with free/combined chlorine and ozone repressed within safety standard under hydrogen-rich conditions.

Hatae T, Miwa N. Medical Gas Research. 2021 Apr-Jun;11(2):61-65.

(03) Biological safety of neutral-pH hydrogen-enriched electrolyzed water upon mutagenicity, genotoxicity and subchronic oral toxicity.

Saitoh Y, Harata Y, …, Miwa N. Toxicology & Industry Health, 2010, 26: pp.203-216.

水素水による糖尿病の改善効果

(18) Effects of hydrogen-rich water prepared by alternating-current-electrolysis on antioxidant activity, DNA oxidative injuries, and diabetes-related markers.

Asada R, Tazawa K, …, Miwa N. Medical Gas Research. 2020 Jul-Sep;10(3):114-121.

水素水による赤血球凝集の抑制/血流改善・白血球の貪食活性化

(27) Hydrogen Gas Inhalation Prevents Erythrocyte Aggregation and Promotes Leukocyte Phagocytosis Together with Increases in Serum Antioxidant Activity

Takada Y, Miwa N. Hydrogen (Basel) 2022, 3(1), 72-82; <https://doi.org/10.3390/hydrogen3010006>.

(25) Heat-retention effects of hydrogen-rich water bath assessed by thermography for humans.

Kato S, Takada Y, Miwa N. Journal of Thermal Biology. 2021 Jan; 95:102805.

(06) Colloidal platinum in hydrogen-rich water exhibits radical-scavenging activity and improves blood fluidity.

S Kato, R Hokama, …, N Miwa. Journal of Nanoscience and Nanotechnology, 2012 May;12(5): 4019-4027.

水素水による抗酸化活性(血液中/分子レベル)増強/脂質抑制/炎症防御効果

(29) Hydrogen-rich bath with nano-sized bubbles improves antioxidant capacity based on oxygen radical absorbing and inflammation levels in human serum.

Tanaka Y, Xiao L, Miwa N. Medical Gas Research. 2022 Jul-Sep;12(3):91-99. doi: 10.4103/2045-9912.330692.

(22) Hydrogen Nano-Bubble Water Suppresses ROS Generation, Adipogenesis, and Interleukin-6 Secretion in Hydrogen-Peroxide- or PMA-Stimulated Adipocytes and Three-Dimensional Subcutaneous Adipose Equivalents.

Xiao L, Miwa N. Cells. 2021 Mar 11;10(3):626.

(09) Antioxidant activities of nano-bubble hydrogen-dissolved water assessed by ESR and 2,2'-bipyridyl methods.

S Kato, D Matsuoka, N Miwa. Materials Science & Engineering C, 53 (2015): 7–10.