Individual Anteaox Polyphenols and Fertility

Antioxidants Generally

"Micronutrient supplementation can enhance the reproductive environment by helping restore micronutrients to recommended levels and strengthening the antioxidant defense system, thus ameliorating oxidative stress, with the clinical benefits of improving oocyte and embryo quality, reducing the time to conception, and increasing the chances of becoming pregnant." 173. Clinical Medicine Insights: Women's Health, 2019

Anteaox Polyphenols -

EGCG

"Here, we present a comprehensive overview of the mechanisms underlying the main physiological activities of EGCG, including antioxidant, antitumor, and antiviral activities, and their potential roles in male and female reproductive systems and fertility. This paper discusses the mechanisms by which EGCG retards the infertility of germ cells and oocytes and provides a supportive recommendation for improving fertility in humans and animals. We hope it will provide useful references for related research in mammalian reproduction". <u>174. Biomedicine & Pharmacotherapy, 2020</u> "Mechanisms by which green tea catechins improve fertility and reproductive function. The figure shows potential mechanisms of action of green tea catechins (EGCG) in different pathways and proposes that green tea polyphenols are capable of improving fertility by improving sperm and embryo quality." <u>175. Nutrients, 2018</u>

Quercetin

"Thus, beyond demonstrating that quercetin confers beneficial mitochondria-related impacts in aged oocytes, this study illustrates a potential strategy to prevent or delay oocyte aging and to improve success rates of assisted human reproductive technologies (ART)." 176. Cell Death & Disease, 2020

Gallic acid

"Global proteomic data suggest that gallic acid may differentially regulate proteins associated with collagen synthesis, cell contractility and gene expression in myometrial and decidual cells. Altogether, these data suggest that gallic acid may be a novel therapeutic to prevent myometrial contractions and rupture of membranes associated with spontaneous preterm birth." <u>177. Reproduction, 2020</u> "Our current data strongly suggest that GA represents a prospective beneficial agent to mitigate reproductive toxicity related to aflatoxicosis in man." <u>178. Experimental Biology & Medicine, 2020</u>

Kaempferol and Luteolin

"In conclusion, luteolin and kaempferol inhibit prolabour mediators in human gestational tissues. Given the central role of inflammation in provoking preterm labour, phytophenols may be a therapeutic approach to reduce the incidence of PTB." <u>179. Oxidative Medicine & Cellular Longevity, 2013</u>

Ellagic acid, Genistein, Diadzein, Apigenin, Rutin, Rosemarinic acid, Biochanin, Caffeic acid, Formononetin, Myricetin, Protocatechuic acid, Epigallocatechin, Cinnamic acid, Ferulic acid, Hydroxybenzoic acid, Oleic acid, Isoquercetin, Chlorogenic acid, p-Coumaric acid, Syringic acid

"Due to the presence of various compounds such as polyphenols with many biological activities, these plants are effective in the prevention and treatment of many reproductive disorders such as PCOS, endometriosis, POF, hypothalamic dysfunction, hyperprolactinemia, PID, menopausal symptoms, osteoporosis, and female reproductive related cancers (cervical, ovarian, uterine/endometrial, vaginal and vulvar cancers). After further pharmacological, phytochemical, and toxicological investigations, new and efficacious drugs can be developed by way of comprehensive investigation and of the bioactivity of various compounds purified from extract of this plants." <u>180. Food Science & Nutrition, 2021</u>

Curcumin

"Finally, curcumin can affect oxidative processes within the ovary and numerous intracellular signalling pathways related to ovarian cell proliferation and apoptosis. These effects suggest the applicability of curcumin for stimulation of female reproductive processes in vivo and in vitro, as well as for the prevention, mitigation, and treatment of various reproductive disorders from ovarian insufficiency and infertility to polycystic ovarian syndrome and ovarian cancer." <u>181. Thieme, 2021</u>

Resveratrol

"Furthermore, in relation to the oxidative stress as a co-factor of defective oocyte maturation, an appropriate intake of proteins, antioxidants and methyl-donor supplements (1-Carbon Cycle) may decrease the bioavailability of toxic oxidants resulting in the protection of oocyte maturation." 182. Frontiers in Endocrinology, 2019