

INTERNATIONAL JOURNAL OF MEDICAL BIOCHEMISTRY

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ORIGINALS

Fraxetin supplementation lowers plasma lipids and enhances antioxidant status in high-fat diet-induced hypercholesterolemic rats
Ayyakkannu P, et al.

Evaluation of tumor marker test requests in a hospital setting
Katar M

Comparison of oxidative stress parameters in patients with prediabetes and type 2 diabetes mellitus: A preliminary study
Yucel C, et al.

Investigation of the effect of autoverification on hematology laboratory workflow
Kazozoglu C

The effect of hemoglobin variants on high-performance liquid chromatography measurements of glycosylated hemoglobin
Seydel GS, et al.

The relationship between vitamin D and prognosis in neurology intensive care patients
Sahingoz Erdal G, et al.

Serum level of vitamin D in obstructive sleep apnea patients with fibromyalgia syndrome
Dumur S, et al.

A histological and biochemical study of cumulus cells and the oocyte microenvironment in *in vitro* fertilization patients
Erkaya N, et al.

Vascular responses disrupted by fructose-induced hyperinsulinemia improved with delta-9-tetrahydrocannabinol
Todurga Seven ZG, et al.

CASE REPORT

Management of ethylenediaminetetraacetic acid and citrate-dependent pseud thrombocytopenia in the laboratory
Hurmeydan O, et al.



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- Abstract: Hortin GL, King C, Kopp J. Quantification of rhesus monkey albumin with assays for human microalbumin [Abstract]. *Clin Chem* 2000;46:A140-
- Editorial: Demers LM. New biochemical marker for bone disease: is it a breakthrough? [Editorial]. *Clin Chem* 1992;38:2169-70.
- Letter to the Editor: Davey L, Naidoo L. Urinary screen for acetaminophen (paracetamol) in the presence of N-acetylcysteine [Letter]. *Clin Chem* 1993;39:2348-9.
- Book Chapter: Rifai N, Warnick GR. Lipids, lipoproteins, apolipoproteins, and other cardiovascular risk factors. In: Burtis CA, Ashwood ER, Bruns DE, editors. *Tietz textbook of clinical chemistry and molecular diagnostics*. 4th Ed. St. Louis (MO): Elsevier Saunders; 2006. p. 903-81.
- Book: Personal Author Harrell FE Jr. *Regression modeling strategies*. New York (NY): Springer; 2001. Bailar JC III, Mosteller F, editors. *Medical uses of statistics*. 2nd Ed. Boston (MA): NEJM Books; 1992:449 p.
- Book with Single Author Cohn PF. *Silent myocardial ischemia and infarction*. 3rd ed. New York: Marcel Dekker; 1993.
- Editor(s) as author: Norman IJ, Redfern SJ, editors. *Mental health care for elderly people*. New York: Churchill Livingstone; 1996
- Technical Reports Tschantz BA, Moran B. Modeling of the hydrologic transport of mercury in the Upper East Fork Poplar Creek (UEFPC) watershed. Technical Report for Lockheed Martin Energy Systems: Bethesda, MD, September 2004.
- Supplement Castelli WP. Lipids, risk factors and ischaemic heart disease. *Atherosclerosis* 1996;124 Suppl:S1-9.
- Epub ahead of print Milbury CA, Li J, Makrigrigorgos GM. PCR-based methods for the enrichment of minority alleles and mutations. [Epub ahead of print] *Clin Chem* February 6, 2009 as doi:10.1373/clinchem.2008.113035.
- Internet Source: American Association for Clinical Chemistry. AACC continuing education. <http://www.aacc.org/education-and-career/continuing-education>(Accessed June 2016).

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CONTENTS VOLUME IV ISSUE I YEAR 2021

EDITORIAL

Konukoglu DX

ORIGINAL ARTICLES

Fraxetin supplementation lowers plasma lipids and enhances antioxidant status in high-fat diet-induced hypercholesterolemic rats

Ayyakkannu P, Sundaram R, Packirisamy M, Ranganathan S 1

Evaluation of tumor marker test requests in a hospital setting

Katar M 8

Comparison of oxidative stress parameters in patients with prediabetes and type 2 diabetes mellitus: A preliminary study

Yucel C, Calci E, Onur A, Oguz EF, Ates I, Turhan T 14

Investigation of the effect of autoverification on hematology laboratory workflow

Kazezoglu C 19

The effect of hemoglobin variants on high-performance liquid chromatography measurements of glycated hemoglobin

Seydel GS, Guzelgul F 25

The relationship between vitamin D and prognosis in neurology intensive care patients

Sahingoz Erdal G, Kasapoglu P, Isiksacan N, Cabalar M, Levent Cirakli Z, Yayla V 29

Serum level of vitamin D in obstructive sleep apnea patients with fibromyalgia syndrome

Dumur S, Yildirim T, Alp R, Kucur M, Aydin M 36

A histological and biochemical study of cumulus cells and the oocyte microenvironment in *in vitro* fertilization patients

Erkaya N, Demirci T, Abuc OO, Halici M, Kasali K 42

Vascular responses disrupted by fructose-induced hyperinsulinemia improved with delta-9-tetrahydrocannabinol

Todurga Seven ZG, Kose C, Coskun ZM, Gokdemir S, Akkan AG, Bolkent S, Ozyazgan S 50

CASE REPORT

Management of ethylenediaminetetraacetic acid and citrate-dependent pseudothrombocytopenia in the laboratory

Hurmeydan O, Cakir Madenci O, Yildiz Z, Gulturk E, Orcun A 56

Reviewer List 2020 60