

Ketosis

[View the current Ketosis InDepth page on BioPortfolio.com](http://www.bioportfolio.com/indepth/Ketosis.html)

(<http://www.bioportfolio.com/indepth/Ketosis.html>)

Ketosis is a stage in metabolism occurring when the liver converts fat into fatty acids and ketone bodies which can be used by the body for energy. It was identified by Dr. Stephen Moody in 1969.

Adipose tissue consists of highly specialized cells which store energy in the form of a triglyceride and release it upon hydrolysis in a process known as lipolysis, yielding three fatty acids and one glycerol molecule.

Ketoacidosis is the accumulation of excessive keto acids in the blood stream, these ketone bodies are a by-product of the lipid metabolic pathway after the fat is converted to energy.

Recent Publications on Ketosis:



- [Glucose homeostasis during canine pregnancy: Insulin resistance, ketosis, and hypoglycemia.](#)
Through a variety of mechanisms, pregnancy causes insulin resistance,... 1st October, 2008
Department of Small Animal Clinical Sciences, College of Veterinary- Theriogenology. 2008 Sep 25. ([DOI Direct Link](#))
- [Multi-tissue insulin resistance despite near-normoglycemic remission in Africans with ketosis-prone diabetes.](#)
Objective: To characterize insulin action in Africans with ketosis-prone... 24th September, 2008
Department of Diabetes and Endocrinology.- Diabetes Care. 2008 Sep 22. ([DOI Direct Link](#))
- [Use of glargine in pregnant women with type 1 diabetes mellitus: a case-control study.](#)
BACKGROUND: Insulin glargine is a once-daily basal insulin analog with... 23rd September, 2008
Section of Endocrinology, Department of Experimental Oncology and Clinical- Clin Ther. 2008 Aug;30(8):1476-84. ([DOI Direct Link](#))
- [Unintended consequences. Vena cava filter migration.](#)
Purpose: To examine the influence of the ketogenic diet (KD) on linear... 19th September, 2008
Internal Medicine, Geisinger Clinic, 100 North Academy Avenue, Danville,- Am J Med. 2008 Sep;121(9):770-1. ([DOI Direct Link](#))
- [Oxidative stress indices in the erythrocytes from lactating cows after treatment for subclinical ketosis with antioxidant incorporated in the therapeutic regime.](#)
The present investigation was carried out to assess the erythrocytic... 13th September, 2008
Department of Medicine, College of Veterinary Science and Animal- Vet Res Commun. 2008 Sep 12. ([DOI Direct Link](#))
- [Making insulin-deficient type 1 diabetic rodents thrive without insulin.](#)
Terminally ill insulin-deficient rodents with uncontrolled diabetes due to... 10th September, 2008
Touchstone Center for Diabetes Research, Department of Internal Medicine,- Proc Natl Acad Sci U S A. 2008 Sep 16;105(37):14070-5. Epub 2008 Sep 8. ([DOI Direct Link](#))
- [FATTY ACID SYNTHASE \(FAS\) INHIBITORS MODULATE ENERGY BALANCE VIA MTOR COMPLEX 1 \(MTORC1\) SIGNALING IN THE CENTRAL NERVOUS SYSTEM \(CNS\).](#)

*Objective: Evidence links the hypothalamic fatty acid synthase (FAS)...*9th September, 2008

Department of Psychiatry, University of Cincinnati, Genome Research- Diabetes. 2008 Sep 5. ([DOI Direct Link](#))

- [\[Use of ABC typing to redefine subtypes of acute-onset type 1 diabetes mellitus: study of 308 patients\]](#)

*OBJECTIVE: To investigate the feasibility of ABC typing to redefine the...*2nd September, 2008

Diabetes Center, Institute of Metabolism and Endocrinology, Second Xiangya- Zhonghua Yi Xue Za Zhi. 2008 Mar 25;88(12):797-801.

- [An unusual cause of interference in a salicylate assay caused by mitochondrial acetoacetyl-CoA thiolase deficiency.](#)

*Mitochondrial acetoacetyl-CoA thiolase deficiency (or beta-ketothiolase...*30th August, 2008

Department of Clinical Biochemistry.- Ann Clin Biochem. 2008 Sep;45(Pt 5):524-6. ([DOI Direct Link](#))

- [Growth dependence on insulin-like growth factor-1 during the ketogenic diet.](#)

*Purpose: To examine the influence of the ketogenic diet (KD) on linear...*30th August, 2008

Department of Neuropediatrics, Astrid Lindgren Children's Hospital,- Epilepsia. 2008 Aug 25. ([DOI Direct Link](#))

- [Plasma FGF-21 levels in type 2 diabetic patients with ketosis.](#)

*FGF-21 has been recently characterized as a potent metabolic regulator,...*30th August, 2008

The Key Laboratory of Laboratory Medical Diagnostics in Ministry of- Diabetes Res Clin Pract. 2008 Aug 21. ([DOI Direct Link](#))

- [A blinded, crossover study of the efficacy of the ketogenic diet.](#)

*Despite over 80 years of use, the ketogenic diet (KD) has never been...*23rd August, 2008

The John M. Freeman Pediatric Epilepsy Center, Departments of Neurology- Epilepsia. 2008 Aug 19. ([DOI Direct Link](#))

- [Relationship between ketosis and dairy cows' blood metabolites in intensive production farms of the periurban area of Dakar.](#)

*This study which involved 140 Holstein and Montbeliard was carried out in...*22nd August, 2008

Biochemistry and Endocrinology, Inter States School of Veterinary Medicine- Trop Anim Health Prod. 2008 Oct;40(7):483-90. Epub 2008 Jan 23. ([DOI Direct Link](#))

- [Caloric stress alters fat characteristics and Hsp70 expression in milk somatic cells of lactating beef cows.](#)

*Selection for higher production rate in cattle inhabiting challenging...*16th August, 2008

Institute of Animal Science, Department of Ruminant Science & Genetics,- Cell Stress Chaperones. 2008 Aug 13. ([DOI Direct Link](#))

Ketosis Clinical Trials:



- [Ketosis Prone Diabetes in African-Americans](#)

Ketosis Prone Diabetes; Diabetic Ketoacidosis; Severe Hyperglycemia



Ketosis Patents:

- 7179809- [2-Amino-imidazo\[4,5-d\]pyridazin-4-ones, their preparation and their use as pharmaceutical compositions](#)
- 7241619- [Desaturase genes and uses thereof](#)
- 7248972- [Computer code for portable sensing](#)
- 7255677- [Detection, diagnosis, and monitoring of a medical condition or disease with artificial olfactometry](#)
- 7258858- [Method of identifying high immune response animals](#)
- 7262318- [Substituted heteroaryl- and phenylsulfamoyl compounds](#)
- 7265101- [Appetite-suppressing compositions and methods](#)
- 7268112- [Use of insulin for the treatment of cartilaginous disorders](#)
- 7268161- [Comprehensive pharmacologic therapy for treatment of obesity including cysteine](#)
- 7285090- [Apparatus for detecting, receiving, deriving and displaying human physiological and contextual information](#)
- 7285298- [Use of a dihydrochalcone-rich phenolic fraction in a cosmetic treatment](#)
- 7232897- [Compositions and methods for modulating NH₂-terminal Jun Kinase activity](#)
- 7232667- [Keratinocyte growth factor-2 polynucleotides](#)
- 7228163- [Methods of monitoring glucose levels in a subject and uses thereof](#)
- 7183280- [Bicyclic imidazole derivatives, the preparation thereof and their use as pharmaceutical compositions](#)
- 7196059- [Pharmaceutical compositions of insulin drug-oligomer conjugates and methods of treating diseases therewith](#)
- 7205134- [.DELTA.4-desaturase genes and uses thereof](#)
- 7208297- [.DELTA.4-desaturase genes and uses thereof](#)
- 7211594- [Indazole compounds and compositions thereof as JNK inhibitors and for the treatment of diseases associated therewith](#)
- 7211656- [Desaturase genes, enzymes encoded thereby, and uses thereof](#)
- 7214495- [Screening method](#)
- 7217711- [Piperazin-1-yl and 2-\(\[1,4\]diazepan-1-yl\)-imidazo\[4,5-d\]-pyridazin-4-ones, the preparation thereof and their use as pharmaceutical compositions](#)
- 7220897- [.DELTA.4-desaturase genes and uses thereof](#)
- 7223727- [GSSP4 polynucleotides and polypeptides and uses thereof](#)
- 7285681- [Biguanide derivatives](#)
- 7288760- [Conformational real-time atmospheric and environmental characterization sampling apparatus and method](#)
- 7368260- [Methods of synthesizing insulin polypeptide-oligomer conjugates, and proinsulin polypeptide-oligomer conjugates and methods of synthesizing same](#)
- 7371732- [Glucopyranosyloxy-substituted aromatic compounds, medicaments containing such compounds, their use and process for their manufacture](#)
- 7375090- [Glucopyranosyloxy-pyrazoles, pharmaceutical compositions containing these compounds, the use thereof and processed for the preparation thereof](#)
- 7375205- [Elongase genes and uses thereof](#)
- 7393836- [D-xylopyranosyl-substituted phenyl derivatives, medicaments containing such compounds, their use and process for their manufacture](#)
- 7393847- [Imidazopyridazinediones, their preparation and their use as pharmaceutical compositions](#)

- 7407955- [8-\[3-amino-piperidin-1-yl\]-xanthines, the preparation thereof and their use as pharmaceutical compositions](#)
- 7417032- [D-xylopyranosyl-phenyl-substituted cycles, medicaments containing such compounds, their use and process for their manufacture](#)
- 7419959- [D-pyranosyl-substituted phenyl derivatives, medicaments containing such compounds, their use and process for their manufacture](#)
- 7421882- [Breath-based sensors for non-invasive molecular detection](#)
- 7364551- [Hand-held medical apparatus](#)
- 7361334- [Method of treatment of diabetes through induction of immunological tolerance](#)
- 7361333- [Prevention of diabetes through induction of immunological tolerance](#)
- 7295867- [Signal processing for measurement of physiological analytes](#)
- 7302349- [System and a method for observing and predicting a physiological state of an animal](#)
- 7303775- [Carbohydrate ruminant feed energy supplement and method](#)
- 7306953- [Detection of disease by analysis of emissions](#)
- 7312192- [Insulin polypeptide-oligomer conjugates, proinsulin polypeptide-oligomer conjugates and methods of synthesizing same](#)
- 7318943- [Feed supplement for increasing the plasma amino acid level of ruminant livestock and method of administration](#)
- 7335168- [Monitoring system for animal husbandry](#)
- 7335676- [Methods for treating inflammatory conditions or inhibiting JNK](#)
- 7350481- [Method and system for monitoring physiological conditions of, and/or suitability of animal feed for ruminant animals](#)
- 7351736- [Therapeutic compositions \(II\)](#)
- 7429599- [Methods for treating or preventing an inflammatory or metabolic condition or inhibiting JNK](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Wessex Barn, Dorchester Road, Frampton, Dorset, DT2 9NB, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2008 - BioPortfolio Limited.

