

Deamination

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Deamination is the removal of an amine group from a molecule. In the human body, deamination takes place in the liver. It is the process by which amino acids are broken down. The amino group is removed from the amino acid and converted to ammonia. The rest of the amino acid is made up of mostly carbon and hydrogen, and is recycled or oxidized for energy. Ammonia is toxic to the human system, and enzymes convert it to urea or uric acid by addition of carbon dioxide molecules in the urea cycle. Urea and uric acid can safely diffuse into the blood and then be excreted in urine.



Recent Publications on Deamination:

- [Base excision repair and its role in maintaining genome stability.](#)
*For all living organisms, genome stability is important, but is also under...*30th August, 2008
Department of Plant Systems Biology, Flanders Institute for Biotechnology,- Crit Rev Biochem Mol Biol. 2008 Jul-Aug;43(4):239-76. ([DOI Direct Link](#))
- [The rate of base excision repair of uracil is controlled by the initiating glycosylase.](#)
*Uracil in DNA is repaired by base excision repair (BER) initiated by a DNA...*30th August, 2008
Department of Cancer Research and Molecular Medicine, Faculty of Medicine,- DNA Repair (Amst). 2008 Aug 19. ([DOI Direct Link](#))
- [Comparative survey of putrescine production from agmatine deamination in different bacteria.](#)
*This article aims to study putrescine production in Lactobacillus...*30th August, 2008
ENOLAB Laboratori de Microbiologia Enologica, Departament de Microbiologia- Food Microbiol. 2008 Oct;25(7):882-7. Epub 2008 Jun 7. ([DOI Direct Link](#))
- [The complementary neighborhood patterns and methylation-to-mutation likelihood structures of 15,110 single nucleotide polymorphisms in the bovine genome.](#)
*The Bayesian analysis was performed to examine the single nucleotide...*22nd August, 2008
Washington State University.- Genetics. 2008 Aug 20. ([DOI Direct Link](#))
- [Quantification of DNA damage products resulting from deamination, oxidation and reaction with products of lipid peroxidation by liquid chromatography isotope dilution tandem mass spectrometry.](#)
*The analysis of damage products as biomarkers of inflammation has been...*21st August, 2008
Center for Environmental Health Sciences, Massachusetts Institute of- Nat Protoc. 2008;3(8):1287-98. ([DOI Direct Link](#))
- [Process research on the preparation of DMT protected 2'-O-methoxyethylguanosine for oligonucleotide synthesis in therapeutic applications.](#)
*An optimized process to synthesize DMT protected 2...*20th August, 2008
Isis Pharmaceuticals, Inc., Carlsbad, California, USA.- Nucleosides Nucleotides Nucleic Acids. 2008 Sep;27(9):1024-33. ([DOI Direct Link](#))
- [Interconversion of the cis-5R,6S- and trans-5R,6R-Thymine Glycol Lesions in Duplex DNA.](#)

- Thymine glycol (Tg), 5,6-dihydroxy-5,6-dihydrothymine, is formed in DNA by...* 7th August, 2008
- J Am Chem Soc. 2008 Sep 3;130(35):11701-10. Epub 2008 Aug 6. ([DOI Direct Link](#))
- [ADP competes with FAD binding in putrescine oxidase.](#)
Putrescine oxidase from Rhodococcus erythropolis NCIMB 11540 (PuORh) is a... 6th August, 2008
Biochemistry, University of Groningen, Groningen 9747 AG.- J Biol Chem. 2008 Aug 4. ([DOI Direct Link](#))
 - [Identification of nitrogen mineralization enzymes, l-amino acid oxidases, from the ectomycorrhizal fungi Hebeloma spp. and Laccaria bicolor.](#)
Amino acids are major nitrogen sources in soils and they harbour a central... 5th August, 2008
University of Helsinki, Department of Applied Biology, P.O. Box 27,- Mycol Res. 2008 Jul 15. ([DOI Direct Link](#))
 - [Mathematical model of nucleotide regulation on airway epithelia: Implications for airway homeostasis.](#)
In the airways, adenine nucleotides support a complex signaling network... 30th July, 2008
Department of Pharmacology, University of North Carolina, Chapel Hill, NC- J Biol Chem. 2008 Jul 28. ([DOI Direct Link](#))
 - [Isolation and Characterization of ACC Deaminase Gene from Two Plant Growth-Promoting Rhizobacteria.](#)
Lowering of plant ethylene by deamination of its immediate precursor... 26th July, 2008
Division of Microbiology, Indian Agricultural Research Institute, New- Curr Microbiol. 2008 Oct;57(4):312-7. Epub 2008 Jul 25. ([DOI Direct Link](#))
 - [Monoamine oxidase inactivation: From pathophysiology to therapeutics.](#)
Monoamine oxidases (MAOs) A and B are mitochondrial bound isoenzymes which... 26th July, 2008
Department of Pharmacology and Pharmaceutical Sciences, School of- Adv Drug Deliv Rev. 2008 Jul 4. ([DOI Direct Link](#))
 - [Cloning, Protein Sequence Clarification, and Substrate Specificity of a Leucine Dehydrogenase from Bacillus sphaericus ATCC4525.](#)
Although an X-ray model sequence of a leucine dehydrogenase from Bacillus... 16th July, 2008
Department of Chemistry, Southern Methodist University, Dallas, TX, 75275,- Appl Biochem Biotechnol. 2008 Jul 15. ([DOI Direct Link](#))
 - [PCR-based analysis of differentially methylated regions of GNAS enables convenient diagnostic testing of pseudohypoparathyroidism type 1b.](#)
BACKGROUND: Pseudohypoparathyroidism type 1b (PHPIb) is characterized by... 12th July, 2008
Austrian Research Centers GmbH-ARC, Molecular Diagnostics, Seibersdorf,- Clin Chem. 2008 Sep;54(9):1537-45. Epub 2008 Jul 10. ([DOI Direct Link](#))
 - [Plant histaminase as an investigational drug in splanchnic artery occlusion and reperfusion.](#)
BACKGROUND: Amine oxidases are ubiquitous enzymes involved in the... 12th July, 2008
University of Messina, School of Medicine, Department of Clinical,- Expert Opin Investig Drugs. 2008 Aug;17(8):1151-60. ([DOI Direct Link](#))

Deamination Clinical Trials:



- [A Possible Therapeutic Role for Adenosine During Inflammation](#)
Endotoxemia Interventions: Genetic: AMPD1 polymorphism; Drug: Caffeine infusion; Drug: placebo



Deamination Patents:

- 7348176- [Chamber with adjustable volume for cell culture and organ assist](#)
- 7368434- [Compounds useful for the inhibition of ALDH](#)
- 7368437- [Bicyclic heterocycles, processes for their preparation and their use as herbicides and pharmaceutical agents](#)
- 7368464- [Preparation for the production of 1,2,4-triazolymethyl-oxiranes](#)
- 7368539- [Non-endogenous, constitutively activated human serotonin receptors and small molecule modulators thereof](#)
- 7368548- [Nucleotide and amino acid sequences, and assays and methods of use thereof for diagnosis of prostate cancer](#)
- 7368612- [Method of producing high-purity hydroxypivalaldehyde and/or dimer thereof](#)
- 7371526- [Method and materials for bisulfite conversion of cytosine to uracil](#)
- 7371527- [Hypermethylation of GATA-4 and GATA-5 transcription factor genes in cancer](#)
- 7371556- [Microorganism](#)
- 7374914- [Method of detection of alterations in MSH5](#)
- 7368239- [Method and materials for polyamine catalyzed bisulfite conversion of cytosine to uracil](#)
- 7365165- [IL-1 antagonist formulations](#)
- 7365091- [Derivatives of succinic and glutaric acids and analogs thereof useful as inhibitors of PHEX](#)
- 7348338- [PPAR active compounds](#)
- 7348463- [Hydrogenation of aromatic compounds](#)
- 7351399- [Prodrugs for phosphorus-containing compounds](#)
- 7354591- [Poxvirus with targeted infection specificity](#)
- 7355084- [Method for hydrogenating organic compounds by means of Ru/SiO₂ catalysts](#)
- 7355199- [Substituted anthracenes and electronic devices containing the substituted anthracenes](#)
- 7358048- [Method for detection of promoter methylation status](#)
- 7358074- [Human phosphatase RET31, and variants thereof](#)
- 7361470- [Electrocatalytic nucleic acid hybridization detection](#)
- 7364758- [Pharmaceutical use of Graptopetalum and related plants](#)
- 7375236- [Methods for producing cyclic benzamidine derivatives](#)
- 7381538- [Optical biosensor with enhanced activity retention for detection of halogenated organic compounds](#)
- 7402588- [Antiviral activity and resolution of 2-hydroxymethyl-5-\(5-fluorocytosin-1-yl\)-1,3-oxathiolane](#)
- 7404951- [Method and composition for protecting neuronal tissue from damage induced by elevated glutamate levels](#)
- 7405063- [Biooxidation capabilities of Candida sp](#)
- 7405230- [Phosphodiesterase 4 inhibitors, including N-substituted aniline and diphenylamine analogs](#)
- 7406384- [System and method for identifying networks or ternary relationships in complex data systems](#)
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- 7411054- [25869, 25934, 26335, 50365, 21117, 38692, 46508, 16816, 16839, 49937, 49931 and 49933 molecules and uses therefor](#)
- 7413855- [Method for bisulfite treatment](#)
- 7414035- [hKIS composition and methods of use](#)
- 7399855- [Synthesis of caprolactam from lysine](#)
- 7399624- [Cephalosporin C acylases](#)

- 7399613- [Sialic acid nucleotide sugars](#)
- 7381820- [.alpha.-1-phosphorylated-2-deoxy-2-fluoroarabinoside and process for producing 2'-deoxy-2'-fluoro-.beta.-d-arabinonucleoside](#)
- 7385048- [Promoters and utilization thereof](#)
- 7388008- [Lysine based compounds](#)
- 7390509- [Compositions and methods for nutrition supplementation](#)
- 7390800- [Adenosine deaminase inhibitor and novel Bacillus sp. lada-7 strain which produces it](#)
- 7390890- [Inhibitors of nucleoside metabolism](#)
- 7393676- [3-Hydroxypropionic acid and other organic compounds](#)
- 7393923- [Red-shifted fluorescent proteins mPlum and mRaspberry and polynucleotides encoding the same](#)
- 7393954- [Process for the production of pentostatin aglycone and pentostatin](#)
- 7396678- [Method for detection of alterations in the DNA mismatch repair pathway](#)
- 7416858- [Pharmaceutical compositions of glycoconjugates](#)

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