

## Aspartate-TRNA Ligase

[View the current Aspartate-TRNA Ligase InDepth page on BioPortfolio.com](#) (PDF)

([http://www.bioportfolio.com/indepth/Aspartate-TRNA\\_Ligase.html](http://www.bioportfolio.com/indepth/Aspartate-TRNA_Ligase.html)) - Regularly Updated.

### Recent Publications on Aspartate-TRNA Ligase:



- [Nonspecific interstitial pneumonia \(NSIP\) associated with anti-KS antibody: differentiation from idiopathic NSIP.](#)  
*We report two cases of biopsy-proven nonspecific interstitial pneumonia...*5th November, 2009  
Department of Integrated Pulmonology, Tokyo Medical and Dental University,- Intern Med. 2009;48(15):1301-6. Epub 2009 Aug 3.
- [Plasmidial aspartyl-tRNA synthetases and peculiarities in Plasmodium falciparum.](#)  
*Distinctive features of aspartyl-transfer RNA (tRNA) synthetases (AspRS)...*2nd September, 2009  
Architecture et Reactivite de l'ARN, Universite de Strasbourg, CNRS,- J Biol Chem. 2009 Jul 10;284(28):18893-903. Epub 2009 May 14. ([DOI Direct Link](#))
- [Dual targeting of a tRNA<sup>Asp</sup> requires two different aspartyl-tRNA synthetases in Trypanosoma brucei.](#)  
*The mitochondrion of the parasitic protozoon Trypanosoma brucei does not...*21st August, 2009  
Department of Chemistry and Biochemistry, University of Bern, Freiestrasse- J Biol Chem. 2009 Jun 12;284(24):16210-7. Epub 2009 Apr 22. ([DOI Direct Link](#))
- [Peculiar inhibition of human mitochondrial aspartyl-tRNA synthetase by adenylate analogs.](#)  
*Human mitochondrial aminoacyl-tRNA synthetases (mt-aaRSs), the enzymes...*26th June, 2009  
Architecture et Reactivite de l'ARN, Universite Louis Pasteur, CNRS, IBMC- Biochimie. 2009 May;91(5):596-603. Epub 2009 Feb 28. ([DOI Direct Link](#))
- [Isolation, crystallization and preliminary X-ray analysis of the transamidosome, a ribonucleoprotein involved in asparagine formation.](#)  
*Thermus thermophilus deprived of asparagine synthetase synthesizes Asn on...*25th June, 2009  
UPR 9002 'Architecture et Reactivite de l'ARN', Universite de Strasbourg,- Acta Crystallogr Sect F Struct Biol Cryst Commun. 2009 Jun 1;65(Pt ([DOI Direct Link](#)))
- [Maturation of the translation inhibitor microcin C.](#)  
*Microcin C (McC), an inhibitor of the growth of enteric bacteria, consists...*11th April, 2009  
Institute of Molecular Genetics, Russian Academy of Sciences, Moscow,- J Bacteriol. 2009 Apr;191(7):2380-7. Epub 2009 Jan 23. ([DOI Direct Link](#))
- [Post-translational modifications guard yeast from misaspartylation.](#)  
*Yeast aspartyl-tRNA synthetase (AspRS) is downregulated at the...*17th March, 2009  
ISIS-ULP, Laboratoire de Biologie Chimique, Strasbourg, France.- Biochemistry. 2008 Nov 25;47(47):12476-82. ([DOI Direct Link](#))
- [Intraphylum diversity and complex evolution of cyanobacterial aminoacyl-tRNA synthetases.](#)  
*A comparative genomic analysis of 35 cyanobacterial strains has revealed...*27th February, 2009  
Instituto de Bioquimica Vegetal y Fotosintesis, Consejo Superior de- Mol Biol Evol. 2008

- Nov;25(11):2369-89. Epub 2008 Sep 4. ([DOI Direct Link](#))
- [Leukoencephalopathy with brain stem and spinal cord involvement and high lactate: a genetically proven case with distinct MRI findings.](#)  
*Leukoencephalopathy with brainstem and spinal cord involvement and lactate...*7th February, 2009  
Marmara University Hospital, Department of Neurology, Istanbul, Turkey.- J Neurol Sci. 2008 Oct 15;273(1-2):118-22. Epub 2008 Jul 10. ([DOI Direct Link](#))
  - [Probing electrostatic interactions and ligand binding in aspartyl-tRNA synthetase through site-directed mutagenesis and computer simulations.](#)  
*Faithful genetic code translation requires that each aminoacyl-tRNA...*16th August, 2008  
Tyndall National Institute, Lee Maltings, Prospect Row, Cork, Ireland.- Proteins. 2008 May 15;71(3):1450-60. ([DOI Direct Link](#))
  - [Escherichia coli peptidase A, B, or N can process translation inhibitor microcin C.](#)  
*The heptapeptide-nucleotide microcin C (McC) targets aspartyl-tRNA...*4th July, 2008  
Institute of Molecular Genetics, Russian Academy of Sciences, Moscow- J Bacteriol. 2008 Apr;190(7):2607-10. Epub 2008 Jan 25. ([DOI Direct Link](#))
  - [On the evolution of the tRNA-dependent amidotransferases, GatCAB and GatDE.](#)  
*Glutamyl-tRNA synthetase and asparaginyl-tRNA synthetase evolved from...*28th May, 2008  
Department of Molecular Biophysics and Biochemistry, Yale University, New- J Mol Biol. 2008 Mar 28;377(3):831-44. Epub 2008 Jan 16. ([DOI Direct Link](#))
  - [The transamidosome: a dynamic ribonucleoprotein particle dedicated to prokaryotic tRNA-dependent asparagine biosynthesis.](#)  
*Asparagine, one of the 22 genetically encoded amino acids, can be...*12th January, 2008  
UPR Architecture et Reactivite de l'ARN, Universite Louis Pasteur de- Mol Cell. 2007 Oct 26;28(2):228-39. ([DOI Direct Link](#))
  - [Mechanism of a GatCAB amidotransferase: aspartyl-tRNA synthetase increases its affinity for Asp-tRNA\(Asn\) and novel aminoacyl-tRNA analogues are competitive inhibitors.](#)  
*The trimeric GatCAB aminoacyl-tRNA amidotransferases catalyze the...*28th December, 2007  
Centre de Recherche sur la Fonction, la Structure et l'Ingenierie des- Biochemistry. 2007 Nov 13;46(45):13190-8. Epub 2007 Oct 11. ([DOI Direct Link](#))
  - [Structure of the nondiscriminating aspartyl-tRNA synthetase from the crenarchaeon Sulfolobus tokodaii strain 7 reveals the recognition mechanism for two different tRNA anticodons.](#)  
*In protein synthesis, 20 types of aminoacyl-tRNA synthetase (aaRS) are...*13th December, 2007  
Graduate School of Bioscience and Biotechnology, Tokyo Institute of- Acta Crystallogr D Biol Crystallogr. 2007 Oct;63(Pt 10):1042-7. Epub 2007 ([DOI Direct Link](#))

## Aspartate-TRNA Ligase Patents:



- 7550578- [Rice promoters for regulation of plant expression](#)
- 7365178- [Acyl-nucleotide probes and methods of their synthesis and use in proteomic analysis](#)
- 7186513- [Methods for monitoring multiple gene expression](#)
- 7141418- [Streptococcus pneumoniae polynucleotides and sequences](#)
- 6737248- [Staphylococcus aureus polynucleotides and sequences](#)
- 6593114- [Staphylococcus aureus polynucleotides and sequences](#)

\*\*\*

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 Stafford House, 10 Prince of Wales Road, Dorchester, Dorset, DT1 1PW, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2009 - BioPortfolio Limited.

