

Immunosuppression

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Immunosuppression involves an act that reduces the activation or efficacy of the immune system. Some portions of the immune system itself have immuno-suppressive effects on other parts of the immune system, and immunosuppression may occur as an adverse reaction to treatment of other conditions. Deliberately induced immunosuppression is generally done to prevent the body from rejecting an organ transplant, treating graft-versus-host disease after a bone marrow transplant, or for the treatment of auto-immune diseases such as rheumatoid arthritis or Crohn's disease. This is typically done using drugs, but may involve surgery, plasmapheresis, or radiation. A person who is undergoing immunosuppression, or whose immune system is weak for other reasons are said to be immunocompromised. When an organ is transplanted, the immune system of the recipient will most likely recognize it as foreign tissue and attack it. The destruction of the organ will, if untreated, end in the death of the recipient. In the past, radiation therapy was used to decrease the strength of the immune system, but now immunosuppressant drugs are used to inhibit the reaction of the immune system. The downside is that with such a deactivated immune system, the body is very vulnerable to opportunistic infections, even those usually considered harmless. Also, prolonged use of immunosuppressants increases the risk of cancer. Cortisone was the first immunosuppressant identified, but its wide range of side effects limited its use. The more specific azathioprine was identified in 1959, but it was the discovery of cyclosporine in 1970 that allowed for significant expansion of kidney transplantation to less well-matched donor-recipient pairs as well as broad application of liver transplantation, lung transplantation, pancreas transplantation, and heart transplantation. Dr. Joseph Murray of Harvard Medical School and chief plastic surgeon at Children's Hospital Boston from 1972-1985 was awarded the Nobel Prize in Physiology or Medicine in 1990 for his work on immunosuppression. Dr. Murray and his team are credited with first successful human kidney transplant at Peter Bent Brigham Hospital, Boston on 23 December 1954. ([From the Wikipedia article Immunosuppression.](#))

Recent Publications on Immunosuppression:



- [Tubular Toxicity in Sirolimus- and Cyclosporine-Based Transplant Immunosuppression Strategies: An Ancillary Study From a Randomized Controlled Trial.](#)
BACKGROUND: Sirolimus has been promoted as an agent to provide... 21st November, 2009
Clinic for Transplantation Immunology and Nephrology, University Hospital, - Am J Kidney Dis. 2009 Nov 16. ([DOI Direct Link](#))
- [The role of microglia in central nervous system immunity and glioma immunology.](#)
The central nervous system (CNS) historically has been considered an... 21st November, 2009
Department of Neurological Surgery, University of California at San- J Clin Neurosci. 2009 Nov 17. ([DOI Direct Link](#))
- [Lower risk of urinary tract infection with low-dose trimethoprim/sulfamethoxazole compared to dapsone prophylaxis in older renal transplant patients on a rapid steroid-withdrawal immunosuppression](#)

[regimen.](#)

- Background: Urinary tract infections (UTI) are common in renal transplant...* 21st November, 2009
South Denver Nephrology Associates, Denver, CO.- Clin Transplant. 2009 Nov 18. ([DOI Direct Link](#))
- [Prospective study of polyomavirus BK replication and nephropathy in renal transplant recipients in China: a single-center analysis of incidence, reduction in immunosuppression and clinical course.](#)
Background: BK virus (BKV)-associated nephropathy (BKVAN) in renal... 21st November, 2009
Department of Organ Transplantation, The First Affiliated Hospital, Sun- Clin Transplant. 2009 Nov 18. ([DOI Direct Link](#))
- [Ulcerative colitis in northern Portugal and Galicia in Spain.](#)
BACKGROUND:: Clinical and therapeutic patterns of ulcerative colitis (UC)... 20th November, 2009
EIGA (Inflammatory Bowel Disease Group of Galicia), Santiago de- Inflamm Bowel Dis. 2009 Nov 18. ([DOI Direct Link](#))
- [Protosappanin A induces immunosuppression of rats heart transplantation targeting T cells in grafts via NF-kappaB pathway.](#)
Protosappanin A as one major and effective ingredient from Caesalpinia... 20th November, 2009
Department of Cardiology, The Second Affiliated Hospital of Harbin Medical- Naunyn Schmiedebergs Arch Pharmacol. 2009 Nov 19. ([DOI Direct Link](#))
- [Restraint Stress Fails to Render C57BL/6 Mice Susceptible to Theiler's Virus-Induced Demyelination.](#)
Objectives: Multiple sclerosis is a degenerative disease of the CNS with a... 20th November, 2009
Department of Veterinary Integrative Biosciences, College of Liberal Arts,- Neuroimmunomodulation. 2009 Nov 17;17(2):109-119. ([DOI Direct Link](#))
- [Blocking the Glucocorticoid Receptor with RU-486 Does Not Prevent Glucocorticoid Control of Autoimmune Mouse Hearing Loss.](#)
Background/Aims: Glucocorticoids effectively manage autoimmune hearing... 20th November, 2009
Oregon Hearing Research Center, Department of Otolaryngology/Head and Neck- Audiol Neurootol. 2009;14(6):423-431. Epub 2009 Nov 16. ([DOI Direct Link](#))
- [Everolimus Interferes with the Inflammatory Phase of Healing in Experimental Colonic Anastomoses.](#)
BACKGROUND: Delayed wound healing is a serious side effect of mTOR... 20th November, 2009
Department of General, Visceral and Transplant Surgery, University of- J Surg Res. 2009 Aug 11. ([DOI Direct Link](#))
- [Biomarkers to discern transplantation tolerance after allogeneic hematopoietic cell transplantation.](#)
While it is commonly accepted that allogeneic hematopoietic cell... 20th November, 2009
Department of Blood and Marrow Transplantation, University of South- Biol Blood Marrow Transplant. 2009 Nov 13. ([DOI Direct Link](#))
- [The relationship of Plasmodium falciparum humoral immunity with HIV-1 immunosuppression and treatment efficacy in Zambia.](#)
ABSTRACT: BACKGROUND: HIV-1 infection affects malaria humoral immunity... 20th November, 2009
- Malar J. 2009 Nov 18;8(1):258. ([DOI Direct Link](#))
- [Pulsed Intravenous Cyclophosphamide and Methylprednisolone Therapy in Refractory Pemphigus.](#)
ABSTRACT Background: Pemphigus is a rare autoimmune blistering disorder... 20th November, 2009
Department of Immunodermatology, St John's Institute of Dermatology, St- Br J Dermatol. 2009 Nov 18. ([DOI Direct Link](#))
- [Early high-dose immunosuppression in Henoch-Schonlein nephrotic syndrome may improve outcome.](#)
Objective. Renal involvement in Henoch-Schonlein purpura (HSP) constitutes... 20th November, 2009
Departments of Paediatrics.- Scand J Urol Nephrol. 2009;43(5):409-415.
- [Serial in vivo imaging of the porcine heart after percutaneous, intramyocardially injected \(111\)In-labeled human mesenchymal stromal cells.](#)
This pilot trial aimed to investigate the utilization of (111)In-labeling... 19th November, 2009
Department of Cardiology, The Heart Centre, Copenhagen University Hospital- Int J Cardiovasc Imaging. 2009 Nov 18. ([DOI Direct Link](#))
- [T10B9 monoclonal antibody: A short-acting nonstimulating monoclonal antibody that spares gammadelta T-cells and treats and prevents cellular rejection.](#)
T10B9.1A-31/MEDI-500 is a nonmitogenic immunoglobulin M kappa murine... 19th November, 2009

BioNews Results for Immunosuppression

- [Evaluation of Tolerability and Ability to Increase Immunosuppression in Renal Transplant Patients Converted From Mycophenolate Mofetil to Enteric-Coated Mycophenolate Sodium](#)
MDLinx: Nov 20 2009 12:06PM Matching: immunosuppression
- [Tubular Toxicity in Sirolimus- and Cyclosporine-Based Transplant Immunosuppression Strategies: An Ancillary Study From a Randomized Controlled Trial](#)
MDLinx: Nov 19 2009 10:40AM Matching: immunosuppression
- [Global Tamiflu-resistant cases detailed](#)
Centre For Infectious Disease Research and Policy: Nov 19 2009 7:16AM Matching: immunosuppression
- [H1N1 flu vaccine arriving for military, most high-risk groups: Vaccine for non-high risk DoD employees, family](#)
Eucom: Nov 12 2009 6:29PM Matching: immunosuppression
- [Balancing Efficacy and Toxicity of Kidney Transplant Immunosuppression](#)
MDLinx: Nov 12 2009 1:22PM Matching: immunosuppression
- [Affitech Announces New Scientific Findings for its r84 Fully Human VEGF/VEGFR2 Selective Antibody](#)
EuroInvestor.co.uk: Nov 6 2009 5:52PM Matching: immunosuppression
- [Affitech Announces New Scientific Findings for its r84 Fully Human VEGF/VEGFR2 Selective Antibody](#)
Therapeutics Daily: Nov 6 2009 12:19PM Matching: immunosuppression
- [Alemtuzumab Induction Prior to Cardiac Transplantation with Lower Intensity Maintenance Immunosuppression: One-Year Outcomes](#)
MDLinx: Nov 6 2009 10:22AM Matching: immunosuppression
- [Immunosuppression With Low-Dose Daclizumab in Liver Transplant Recipients With Impaired Kidney Function: A Single-Center Experience](#)
MDLinx: Nov 6 2009 10:22AM Matching: immunosuppression
- [Choice of Calcineurin Inhibitor Does Not Influence Outcome of Liver Transplantation in HCV-Positive Recipients](#)
Doctors Guide: Nov 5 2009 11:09PM Matching: immunosuppression
- [The HSE has commenced its Swine Flu vaccination programme. Find out where you can get the vaccine](#)
RTE Online: Nov 3 2009 10:44AM Matching: immunosuppression
- [Kildare swine flu vaccination roll-out](#)
Leinster Leader: Oct 28 2009 12:55PM Matching: immunosuppression
- [Prospective Observational Study of Sirolimus as Primary Immunosuppression After Renal Transplantation](#)
Transplantation: Oct 26 2009 10:39AM Matching: immunosuppression
- [Epidermal Langerhans Cells Are Not Required for UV-Induced Immunosuppression](#)
MDLinx: Oct 22 2009 12:28PM Matching: immunosuppression
- [Immunosuppression in kidney transplantation: A review and a personal approach](#)
MDLinx: Oct 14 2009 11:23AM Matching: immunosuppression



Immunosuppression Patents:

- 7601518- [Secretion of neublastin](#)
- 7605143- [2-propynyl adenosine analogs with modified 5'-ribose groups having A.sub.2A agonist activity](#)
- 7605171- [\(3,4-disubstituted\)propanoic carboxylates as S1P \(Edg\) receptor agonists](#)
- 7605238- [Human CTLA-4 antibodies and their uses](#)
- 7605239- [Skeletal-targeted radiation to treat bone-associated pathologies](#)
- 7605240- [Methods of treating diarrhea and bloating caused by small intestinal bacterial overgrowth](#)
- 7605257- [Processes for preparing water-soluble polyethylene glycol conjugates of macrolide immunosuppressants](#)
- 7605269- [Thiophene derivatives as Sphingosine-1-phosphate-1 receptor agonists](#)
- 7605270- [Polymorphic forms of \(S\)-tetrahydrofuran-3-yl-3-\(3-\(3-methoxy-4-\(oxazol-5-yl\) phenyl\) ureido\) benzylcarbamate](#)
- 7608267- [Multifunctional cytokines](#)
- 7608452- [Polynucleotides encoding cytokine receptor zcytor19](#)
- 7605138- [Nucleic acid compositions for stimulating immune responses](#)
- 7604936- [Methods and compositions for diagnosis and monitoring auto immune and chronic inflammatory diseases](#)
- 7601699- [Production of reprogrammed cells with restored potential](#)
- 7601703- [Enzyme catalyzed therapeutic agents](#)
- 7601714- [Pyrimidine derivatives useful as inhibitors of PKC-theta](#)
- 7601727- [Pyrrolo\[2,3-d\]pyrimidine compounds](#)
- 7601809- [Cytokine receptor zcytor19](#)
- 7601813- [Anti-GL50 antibodies](#)
- 7601844- [Piperidinyl derivatives as modulators of chemokine receptor activity](#)
- 7604797- [Compositions and methods for treating burns](#)
- 7604799- [EphA4 Antibodies](#)
- 7604800- [Anti-PSGL-1 antibodies](#)
- 7608637- [Pharmaceutical composition for treatment of diseases associated with decrease in bone mass comprising EP4 agonist as the active ingredient](#)
- 7608686- [Human tumor necrosis factor receptor](#)
- 7615556- [Piperazinyl derivatives as modulators of chemokine receptor activity](#)
- 7618621- [Mammalian multipotent neural stem cells and compositions, methods of preparation and methods of administration thereof](#)
- 7618622- [Treatment of Parkinson's disease and related disorders using postpartum derived cells](#)
- 7618629- [Manipulation of cytokine levels using CD83 gene products](#)
- 7618632- [Method of treating or ameliorating an immune cell associated pathology using GITR ligand antibodies](#)
- 7618646- [Matrix, cell implant and method for their production and use](#)
- 7618655- [Method for the preparation of aqueous solutions of reactive chlorine compounds](#)
- 7618791- [Methods of detecting cancer with antibodies to cytokine receptor ZCYTOR19](#)
- 7618935- [Chaperonin 10 immunosuppression](#)
- 7618981- [Imidazopyridinyl-benzamide anti-cancer agents](#)
- 7615539- [Nucleic acid-lipophilic conjugates](#)
- 7615381- [Method and apparatus for detecting estradiol and metabolites thereof using an acoustic device](#)

- 7611908- [Method and apparatus for therapeutic drug monitoring using an acoustic device](#)
- 7612050- [Drug for the treatment of osteonecrosis and for the management of patients at risk of developing osteonecrosis](#)
- 7612094- [Tri-substituted heteroaryls and methods of making and using the same](#)
- 7612110- [Utilization of dialkylfumarates](#)
- 7612168- [Modified HIV peptides, antigens, compositions, immunoassay kit and a method of detecting antibodies induced by HIV](#)
- 7612170- [Co-stimulatory polypeptides](#)
- 7612178- [Anti-IGF-1R antibodies and uses thereof](#)
- 7612181- [Dual variable domain immunoglobulin and uses thereof](#)
- 7615216- [Antibodies against CCR5 and uses thereof](#)
- 7615352- [Detection of Epstein-Barr virus](#)
- 7619001- [Utilization of dialkylfumarates](#)

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