

Acrosome

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In spermatozoa of many animals, the Acrosome is an organelle that develops over the anterior half of the sperm's head. It is a cap-like structure derived from the Golgi apparatus. Acrosome formation is completed during testicular maturation. In Eutherian mammals the acrosome contains digestive enzymes. These enzymes breakdown the outer membrane of the ovum called the zona pellucida, allowing the haploid nuclei in the sperm to join with the haploid nucleus found in the ova. ([From the Wikipedia article Acrosome.](#))

Recent Publications on Acrosome:



- [USP8, a Regulator of Endosomal Sorting, Is Involved in Mouse Acrosome Biogenesis Through Interaction with the Spermatid ESCRT-0 Complex and Microtubules.](#)
*USP8 is a deubiquitinating enzyme that works as a regulator of endosomal...*5th February, 2010
- Biol Reprod. 2010 Feb 3. ([DOI Direct Link](#))
- [Epididymal Hypo-Osmolality Induces Abnormal Sperm Morphology and Function in the Estrogen Receptor Alpha Knockout Mouse.](#)
*Estrogen receptor-alpha (ESR1) is highly expressed in the efferent...*5th February, 2010
- Biol Reprod. 2010 Feb 3. ([DOI Direct Link](#))
- [The Cryoprotective Effects of Vitamin B\(12\) Supplementation on Bovine Semen Quality.](#)
*Contents The present study aimed to investigate the effects of vitamin...*2nd February, 2010
College of Animal Science and Technology, Northwest A & F University,- Reprod Domest Anim. 2010 Jan 26. ([DOI Direct Link](#))
- [Proteomic analysis of proteins involved in spermiogenesis in mouse.](#)
*Spermiogenesis is a unique process in mammals during which haploid round...*27th January, 2010
- J Proteome Res. 2010 Jan 25. ([DOI Direct Link](#))
- [Delineation of downstream signalling components during acrosome reaction mediated by heat solubilized human zona pellucida.](#)
*ABSTRACT: BACKGROUND: Human egg is enveloped by a glycoproteinaceous...*26th January, 2010
- Reprod Biol Endocrinol. 2010 Jan 23;8(1):7. ([DOI Direct Link](#))
- [Chromosome analysis of mouse zygotes produced by intracytoplasmic injection of spermatozoa exposed to acrosome reaction inducing agents methyl-beta-cyclodextrin and calcium ionophore A23187.](#)
*PURPOSE: This study was performed to investigate whether removal of...*23rd January, 2010
Department of Biological Sciences, Asahikawa Medical College, 2-1- J Assist Reprod Genet. 2010 Jan 22. ([DOI Direct Link](#))
- [Proteomic analysis of heparin-binding proteins from human seminal plasma: a step towards identification of molecular markers of male fertility.](#)
*Glycosaminoglycans, especially heparin, are involved in various cell...*23rd January, 2010

Department of Biophysics, All India Institute of Medical Sciences, New- J Biosci. 2009 Dec;34(6):899-908.

- [The influence of washing Spanish ibex \(*Capra pyrenaica*\) sperm on the effects of cryopreservation in dependency of the photoperiod.](#)
*Extenders containing low concentrations of egg yolk are recommended for...*23rd January, 2010
Departamento de Reproduccion Animal, INIA, Madrid, Spain.- *Theriogenology*. 2010 Jan 19. ([DOI Direct Link](#))
- [Seasonal variation in the protective effect of seminal plasma on frozen-thawed ram spermatozoa.](#)
*The response of ram spermatozoa to seminal plasma is highly variable, in...*22nd January, 2010
Faculty of Veterinary Science, The University of Sydney, NSW 2006, Sydney,- *Anim Reprod Sci*. 2009 Dec 16. ([DOI Direct Link](#))
- [Sperm Proteomics Reveals Intensified Selection on Mouse Sperm Membrane and Acrosome Genes.](#)
*Spermatozoa are a focal point for the impact of sexual selection due to...*19th January, 2010
Department of Biology and Biochemistry, University of Bath, Bath BA2 7AY,- *Mol Biol Evol*. 2010 Jan 15. ([DOI Direct Link](#))
- [Comparison between propidium iodide and 7-amino-actinomycin-D for viability assessment during flow cytometric analyses of the human sperm acrosome.](#)
*Evaluation of the acrosome reaction can shed light on the fertilising...*19th January, 2010
Department of Biomedical Sciences, Tshwane University of Technology,- *Andrologia*. 2010 Feb;42(1):20-6. ([DOI Direct Link](#))
- [New insights about the evaluation of human sperm quality: the aromatase example.](#)
*Male contribution to the couple's infertility is at first evaluated by the...*14th January, 2010
CHU Caen - Avenue Georges Clemenceau, Unite de Biologie de la- *Folia Histochem Cytobiol*. 2009;47(5):S13-7. ([DOI Direct Link](#))
- [Rimonabant \(SR141716\) induces metabolism and acquisition of fertilizing ability in human sperm.](#)
*Background and purpose: The endocannabinoid system and the cannabinoid...*14th January, 2010
Department of Pharmaco-Biology, University of Calabria 87036 Arcavacata di- *Br J Pharmacol*. 2010 Jan 8. ([DOI Direct Link](#))
- [Ultrastructural studies on euspermatozoa and paraspermatozoa in Mantispidae \(Insecta, Neuroptera\).](#)
*Previous studies have demonstrated the presence of sperm dimorphism in the...*12th January, 2010
Department of Evolutionary Biology, University of Siena, Via Aldo Moro 2,- *Tissue Cell*. 2010 Jan 8. ([DOI Direct Link](#))
- [Endoplasmic reticulum protein 29 \(ERp29\), a protein related to sperm maturation is involved in sperm-oocyte fusion in mouse.](#)
*ABSTRACT: BACKGROUND: Sperm-oocyte fusion is a critical step in...*23rd September, 2009
- *Reprod Biol Endocrinol*. 2010 Feb 4;8(1):10. ([DOI Direct Link](#))

Acrosome Clinical Trials:



- [Human Sperm Binding to Transgenic Mouse Eggs](#)



Acrosome Patents:

- 7208265- [Method of cryopreserving selected sperm cells](#)
- 7309699- [3-Quinuclidinyl amino-substituted biaryl derivatives](#)
- 7335507- [Process for the staining of sperm](#)
- 7339029- [Sperm-specific cation channel, CatSper2, and uses therefor](#)
- 7339090- [Microinjection devices and methods of use](#)
- 7365193- [Amino-substituted tricyclic derivatives and methods of use](#)
- 7368249- [Methods and compositions for evaluation and modulation of fertility](#)
- 7371517- [High purity X-chromosome bearing and Y-chromosome bearing populations of spermatozoa](#)
- 7371871- [Inhibitors of glutaminyl cyclase](#)
- 7371922- [Nuclear transfer with porcine embryonic stem cells](#)
- 7381537- [Use of inhibitors of glutaminyl cyclases for treatment and prevention of disease](#)
- 7304086- [Inhibitors of glutaminyl cyclase](#)
- 7294755- [Genetic modification of male germ cells for generation of transgenic species and genetic therapies](#)
- 7291495- [.beta.-Secretase variant](#)
- 7217525- [Method for identifying compounds which affect ionotropic glutamate receptor aggregation](#)
- 7221453- [Optical apparatus](#)
- 7230073- [Sperm specific proteins](#)
- 7235634- [2786, a novel human aminopeptidase](#)
- 7241773- [3-quinuclidinyl heteroatom bridged biaryl derivatives](#)
- 7250496- [Bioinformatically detectable group of novel regulatory genes and uses thereof](#)
- 7262039- [Polypeptide](#)
- 7271243- [Full-length human cDNAs encoding potentially secreted proteins](#)
- 7273694- [Method and apparatus for reducing pathogens in a biological sample](#)
- 7276329- [Method of sorting cells](#)
- 7384913- [PT32 sperm protein, sperm c-Yes, oocyte cytoplasmic c-Yes, and uses thereof](#)
- 7399765- [Substituted diazabicycloalkane derivatives](#)
- 7494780- [Epididymis-specific defensin for evaluating and regulating male fertility](#)
- 7511126- [Position-independent and tissue specific expression of a transgene in milk of transgenic animals](#)
- 7531299- [In vitro uptake of SPAM 1 \(PH-20\) by mammalian sperm](#)
- 7586604- [Optical apparatus](#)
- 7618770- [Methods and apparatus for reducing protein content in sperm cell extenders](#)
- 7622143- [Reproductive cell system](#)
- 7629113- [Multiple sexed embryo production system for bovine mammals](#)
- 7632460- [Test kits and devices](#)
- 7632654- [Means and methods for detecting endoglycosidase activity](#)
- 7655657- [Fused bicycloheterocycle substituted quinuclidine derivatives](#)
- 7485430- [Methods and compositions for evaluation of fertility](#)
- 7476693- [Suramin and derivatives thereof as topical microbicide and contraceptive](#)
- 7462599- [Use of effectors of glutaminyl and glutamate cyclases](#)
- 7405036- [Process for reducing pathogens in a biological sample and removing a sample pellet from a sample tube](#)
- 7405077- [Sperm protein 17 for the diagnosis and treatment of cancer](#)

- 7405202- [CRISP polypeptides as contraceptives and inhibitors of sperm capacitation](#)
- 7407933- [Drug containing angiotensin convertase](#)
- 7413861- [Methods for predicting increase sperm ejaculate in a varicocele associated fertility patient](#)
- 7417066- [Inhibitors of soluble adenylate cyclase](#)
- 7429461- [Genetic products differentially expressed in tumors and use thereof](#)
- 7439221- [Methods and compositions for modulating gamete adhesion](#)
- 7449459- [Inhibitors of soluble adenylate cyclase](#)
- 7459156- [Antibodies that mimic actions of neurotrophins](#)
- 7655684- [Inhibitors of glutaminy cyclase](#)

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