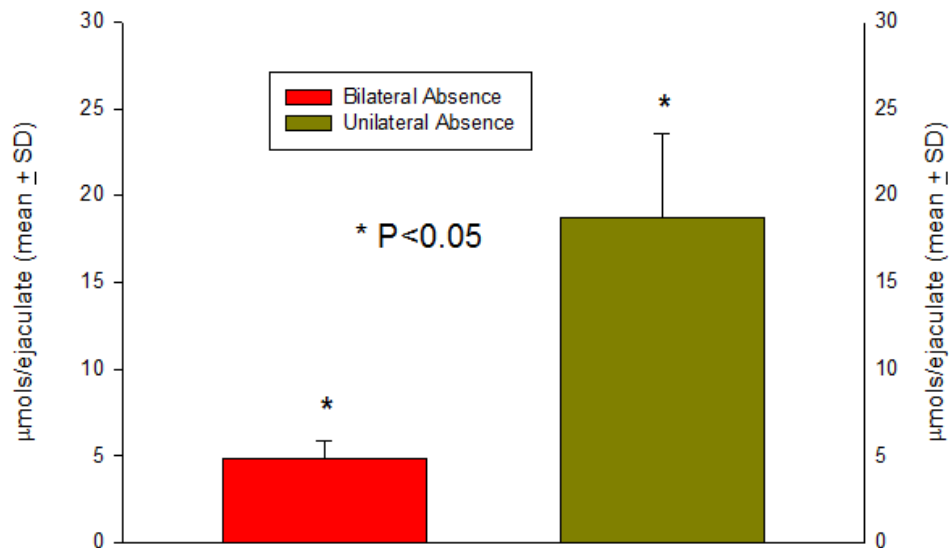


Bioscreen Inc., An Annotated Bibliography

Sharma N, Acharya N, Singh SK, Singh M, Sharma U, Prasad R. Heterogenous spectrum of *CFTR* gene mutations in Indian patients with congenital absence of vas deferens. Hum Reprod 2009;24:1229-1236. PUBMED ID: 19181743

Semen fructose measured with FructoScreen®



In this study of men with congenital absence of the vas deferens, **FructoScreen®** was used to measure semen fructose. As is shown in the figure, seminal fructose was lower in men with bilateral, compared to unilateral, congenital absence of the vas.

Cai L, Zhang B, Tao X, Wang X, Huang S. Semen analysis and sperm morphology analysis of infertile males. [Medical and Health Care Instruments] 2008;9:64-66.

URL(accessed Feb. 18, 2010): <http://journal.shouxi.net/qikan/article.php?id=445486>

In this report, **QC-Beads™** were used for internal quality control in an andrology laboratory. Quality control was done on both a daily basis and with weekly random assessment.

Munuce MJ, Quintero I, Caille AM, Ghersevich S, Berta CL. Comparative concentrations of steroid hormones and proteins in human peri-ovulatory peritoneal and follicular fluids. Reprod BioMed Online 200613:202-207. PUBMED ID: 16895633

Basic researchers used **MarScreen® IgA** and **MarScreen® IgG** to measure indirect antisperm antibodies in peritoneal fluid of women undergoing laparoscopy.

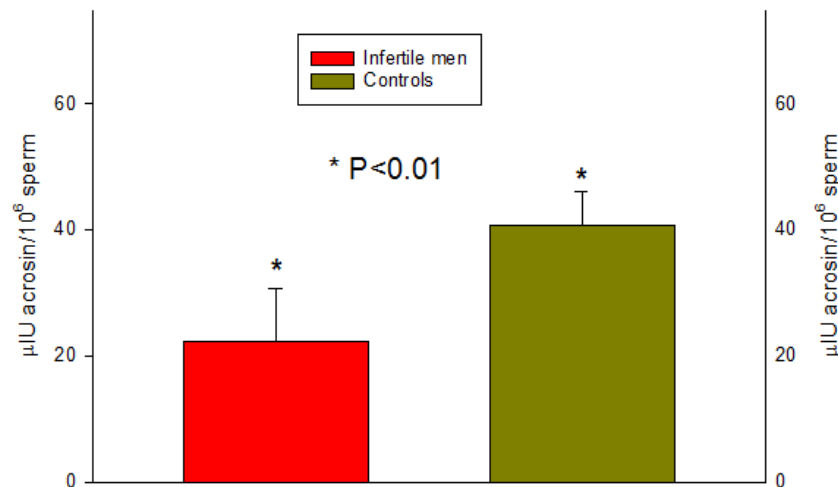
Motrich RD, Cuffini C, Obert JPM, Maccioni M, Rivero VE. *Chlamydia trachomatis* occurrence and its impact on sperm quality in chronic prostatitis patients. J Infect 2006;53:175-183. PUBMED ID: 16376990

Researchers used **ImmunoSpheres® IgA** and **MarScreen® IgG** to study sperm quality in men with chronic prostatitis.

Emokpae MA, Uadia PO. Acrosin activity in spermatozoa of infertile Nigerian males. Ind J Clin Biochem 2006;21:199-201.

URL (accessed Feb. 18, 2010): <http://www.medind.nic.in/iaf/t06/i1/iaft06i1p199.pdf>

Acrosin activity measured with AcroScreen™



In this cohort study, **AcroScreen™** was used to measure acrosin activity in infertile men and controls. Acrosin activity was lower in men with infertility compared to fertile control men.

Patel RP, Kolon TK, Huff DS, Carr HM, Zderic SA, Canning DA, et al. Testicular microlithiasis and antisperm antibodies following testicular biopsy in boys with cryptorchidism. J Urology 2005;74:2008-2010. PUBMED ID: 16217379

MarScreen® IgG was used to measure antisperm antibodies in young men 10 years after testicular biopsy. In 57 cases, antisperm antibodies were negative in all, offering reassurance against fertility detriments of testicular biopsy.

Motrich RD, Maccioni M, Molina R, Tissera A, Olmedo J, Riera CM, *et al.* Reduced semen quality in chronic prostatitis patients that have cellular autoimmune response to prostate antigens. Hum Reprod 2005;20:2567-2572. PUBMED ID: 15890732

Researchers used **ImmunoSpheres® IgA** and **Marscreen® IgG** in a study of autoimmune responses with chronic prostatitis. Antisperm antibodies were unassociated with chronic prostatitis.

Vujisić S, Lepej SŽ, Jerkovi L, Emedi I, Sokolić B. Antisperm antibodies in semen, sera and follicular fluids of infertile patients: relation to reproductive outcome after in vitro fertilization. Am J Reprod Immunol 2005;54:13-20. PUBMED ID: 15948768

Leucoscreen® was used to quantify seminal leukocytes. **Marscreen® IgA, IgG**, and **IgM** were used to measure antisperm antibodies on sperm surfaces and in peritoneal and follicular fluids of the partners.

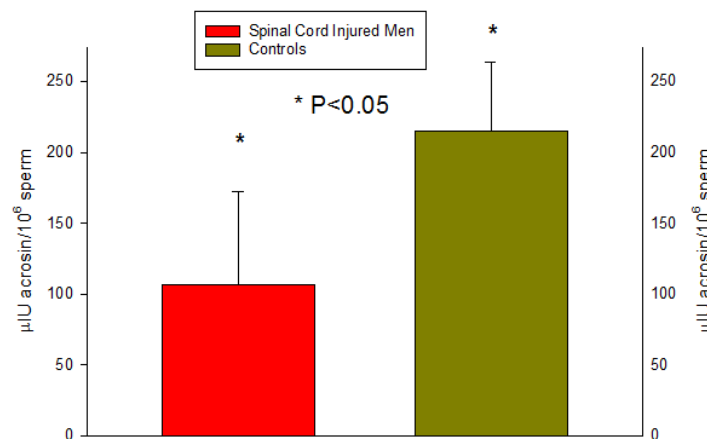
Munuce MJ, Marín-Briggiler CI, Caille AM, Berta CL, Cuasnicú PS, Morisolli L. Modulation of human sperm function by peritoneal fluid. Fertil Steril 2003;80:939-946. PUBMED ID: 14556816

MarScreen® was used to detect indirect antisperm antibodies in this study of peritoneal fluid.

Bruck DS, Aballa TC, Lynne CM, Brackett NL. Acrosome activity is lower in sperm from men with spinal cord injury compared to age-matched, healthy control subjects. Fertil Steril 2003;80,s3:s48.

URL (accessed Feb. 18, 2010): <http://www.fertstert.org/article/S0015-0282%2803%2901932-0/abstract>

Acrosin activity measured with AcroScreen™



AcroScreen™ was used to measure acrosin activity, which was lower in spinal cord injured men, compared to controls.

Roseff SJ. Improvement in sperm quality and function with French maritime pine tree bark extract. J Reprod Med 2002;47: 821-824. PUBMED ID: 12418064

ImmunoSpheres[®] were used to test for direct antisperm antibodies in this observational study of men with subfertility who received treatment with an antioxidant compound.

Cayan S, Conaghan J, Schriock ED, Ryan IP, Black LD, Turek PJ. Birth after intracytoplasmic sperm injection with use of testicular sperm from men with Kartagener/immotile cilia syndrome. Fertil Steril 2001;76:612-614. PUBMED ID: 17442314

In this case report, **ImmunoSpheres**[®] were used to test for indirect antisperm antibodies in an individual with Kartagener's/immotile cilia syndrome.

Casals T, Bassas L, Egozcue S, Ramos MD, Giménez J, Segura A, et al. Heterogeneity for mutations in the CFTR gene and clinical correlations in patients with congenital absence of the vas deferens. Hum Reprod 2000;15:1476-1483. PUBMED ID: 11532490

FructoScreen[®] and **CitricScreen**[®] were used to study patients with congenital absence of the vas deferens. Fructose and citric acid concentrations were highly correlated with seminal volume. Fructose concentrations in seminal plasma were higher in men with unilateral, compared to bilateral, absence of the vas deferens.

Solis EA, Gatti VN, Brufman AS, Bouvet BR, Provenzal OC. [Advantages of a new kit for the determination of antisperm autoantibodies]. Arch Esp Urol 2000;53:363-6.

PUBMED ID: 10900767

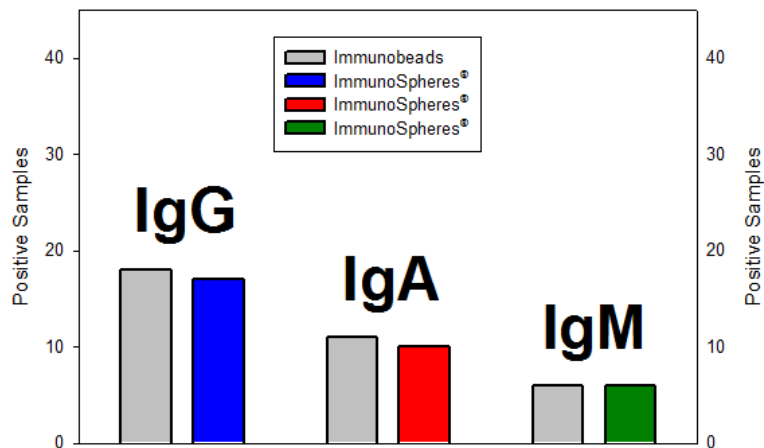
TAC II, a novel kit developed and validated by the authors, was compared to **Marscreen**[®]. Results were in agreement between methods. TAC II can be used on frozen and oligospermic samples.

Roseff SJ, Gulati R. Improvement of sperm quality by Pycnogenol[®]. Eur Bull Drug Res 1999;7:33-36. URL (accessed Feb. 18, 2010): http://www.chiroonline.net/_fileCabinet/pycnog_pub.pdf

ImmunoSpheres[®] were used to test for direct antisperm antibodies in this observational study of men with subfertility who received treatment with an antioxidant compound.

Centola GM, Andolina E, Deutsch A. Comparison of the immunobead binding test (IBT) and immunospheres (IS) assay for detecting serum antisperm antibodies. Am J Reprod Immunol 1997;37: 300-303. PUBMED ID: 9161636

Immunobeads compared to ImmunoSpheres®



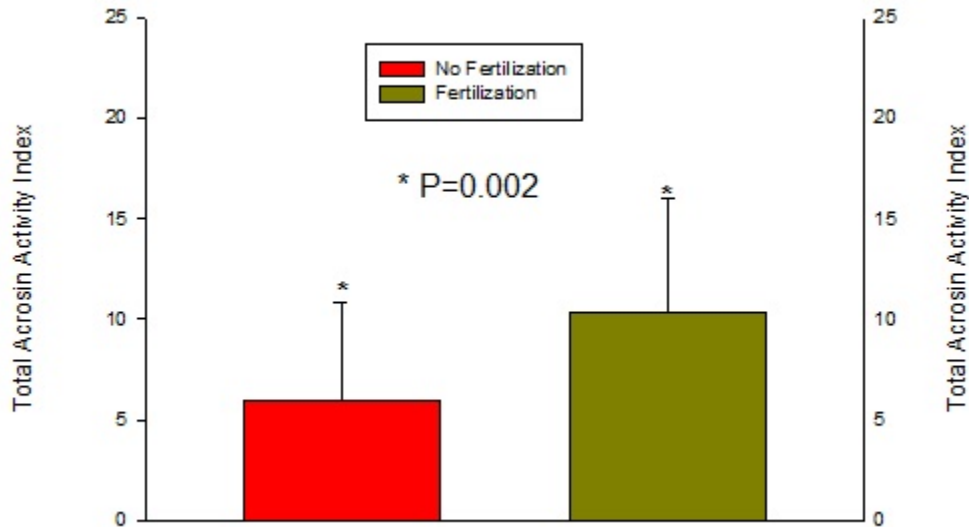
Antisperm antibody results using color coded **ImmunoSpheres®**, visualized by bright field microscopy, and the Immunobead binding test, visualized by phase contrast microscopy, were in agreement.

Adamopoulos DA, Nicopoulou S, Kapolia N, Karamertzanis M, Andreou E. The combination of testosterone undecanoate with tamoxifen citrate enhances the effects of each agent given independently on seminal parameters in men with idiopathic oligozoospermia. Fertil Steril 1997;67:756-762. PUBMED ID: 9093207

AcroScreen™ was used to measure acrosin in this randomized trial of hormonal therapy for men with idiopathic oligozoospermia.

Tummon IS, Yuzpe AA, Daniel SAJ, Deutsch A. Total acrosin activity correlates with fertility potential after fertilization in vitro. Fertil Steril 1991;56:933-938. PUBMED ID 1936330

Acrosin activity measured with **AccuSperm**



The total acrosin activity index measured with **AcroScreen™**, then described as **AccuSperm**, is greater when fertilization *in vitro* is successful, compared to when it is not.

Deutsch A, Prisco J, Melnick H, Vescell TA, Ionascu L, Williams W. A simplified method for measuring acrosin activity in spermatozoa. J Int Fed Clin Chem 1990;2:228-231

The original description of **AcroScreen™**, the simplified photometric method for measuring acrosin activity.