

S S M R
N E W S

Winter Society for the Study of Male Reproduction 2009



President's Message



Stanton C. Honig, MD

Dear SSMR members:

Welcome to the Winter SSMR Newsletter!

Many exciting things are happening with the SSMR. We are in final preparations for our annual meeting at the AUA. In addition, we are continuing to develop relationships with patient advocacy groups and industry to promote the importance of evaluation and treatment of the infertile male.

Congratulations to one of our members, Dale McClure. Dale is the incoming president for

the American Society for Reproductive Medicine (ASRM). This is a very important position, and since it is held by one of our own, it will give us the opportunity to expand our advocacy for the male.

Under the capable direction of Dr. Peter Kolettis, the annual SSMR meeting at the AUA will feature the topic "**Endocrinology of Male Reproduction**". We have a diverse group of speakers on the program. We have our SSMR all-stars, Drs. Larry Lipshultz, Abe Morgentaler and Wayne Hellstrom speaking on hypogonadism in general and the effects of anabolic steroids on male reproduction.

We have newcomers to the program, Drs. Darius Paduch, Siji Parakethil and Daniel Williams, speaking on physiology and pathophysiology of the hypothalamic-pituitary axis, treatment of the infertile hypogonadal male and new concepts in fertility treatment in cancer patients.

One of the nation's experts in **Male Hormonal Contraception, John Amory MD** from the University of Washington, will be speaking to the group about "Hypogonadotropic Hypogonadism and New Developments in Male Hormonal Contraception".

The SSMR meeting will again be on Tuesday afternoon, allowing members to maximize their time with infertility sessions between Tuesday and Wednesday.

In addition, we have a special SSMR banquet dinner planned this year on Tuesday night at the **Lincoln Park Zoo, in the Lion House**. We have the privilege of dining with the animals and are in consultation regarding a special lecture from one of the zoologists on reproductive issues. Please go to our website at www.ssmr.org to sign up for this exciting annual event.

The SSMR has initiated a **Distinguished Service Award for Andrology**. We have had several nominees for the award so far. The award winner will be announced at the SSMR meeting. The SSMR is now twelve years old, and it is time to honor one of our dedicated members with this award.

Keep your eyes on your emails for the **Humor in Reproductive Medicine** contest. Many of us love to share funny cartoons or jokes with our colleagues and use them in presentations. Slides and videos which are clever, subtle, witty, funny and easily understood by an international audience will be favored for presentation, without any hardcore, nasty, offensive or crude pornography. Material must be inoffensive to the diverse cultures, religions and genders of SSMR members and the general public. Formal guidelines for the contest will be forthcoming. The winning videos, cartoons, etc. will win a prize and be presented in a three-minute session after the break at the 2009 SSMR meeting. These will be available to SSMR members on our website to download for their own presentations.

Under the guidance of Dr. David Shin, the SSMR is in the process of preparing a slide set for use by its members. David will likely be soliciting the aid of members to donate some of their personal slides for a core of basic reproductive physiology and clinical topics.

We are looking forward to a strong finish to this year of reproductive urology. I hope to see all of you at the AUA and the SSMR meeting and banquet in Chicago. ☘

Sincerely,

Stanton Honig MD
President, SSMR

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Congratulations to Dr. Paduch

The AUA Foundation Office of Research offers their congratulations on the selection of Dr. Paduch to present at this year's Research Forum. Dr. Paduch's research on "Estradiol Signaling Through Novel Estradiol Receptor GPR30 and Its Role in Male Reproduction" is an excellent addition to the program. It is sure to be a dynamic, entertaining, and scientifically significant presentation. The Research Forum is scheduled for Sunday, April 26th from 3:00 p.m. – 5:30 p.m. at the McCormick Place South Room 102 A/B/C/D. Posters from the nominees and presenters will be available before and after the program. This is a free event and good attendance will help ensure this opportunity to showcase the work of talented young investigators continues at future AUA Annual Meetings. ☘

Thank You to our 2009 Industry Supporters

Ruby Level
American Urological Association
Coast Reproductive
Slate Pharmaceuticals

Review of the ASRM 2008

MONDAY, NOVEMBER 10, 2008

**The Society for Male Reproduction and Urology
Oral Abstract Presentation Session
3:15 – 5:15 p.m.**

Monday, November 10, 2008

ASRM, San Francisco

Summarized by Harris Nagler, MD

[O-8]

THE USE OF BIASED LANGUAGE AND INACCURATE INFORMATION ABOUT MALE FACTOR INFERTILITY ON FERTILITY CLINIC WEBSITES IN THE UNITED STATES

D. H. Williams, IV, J. D. Nelson et al University of Wisconsin, Madison Wisconsin

SMRU PRIZE PAPER

The purpose of this study was to evaluate male factor infertility (MFI) content on fertility clinic websites in the United States.

The authors queried the Society for Assisted Reproductive Technology registry in July of 2007 and obtained a list of 396 clinics performing IVF/ICSI. Websites were assessed for :

1. academic or private
2. whether or not male factor infertility was mentioned
3. whether or not a urologist was part of the fertility team
4. if there were links to the urologist on the webpage

Discussion of vasectomy reversal, presence of inaccurate information, and the use of biased language were noted. Language was considered biased if it could potentially dissuade a couple from seeking a male factor infertility evaluation or treatment. Overall, 58.0% of websites mentioned MFI. Only 7.4% of clinics included a urologist as part of their treatment team. 13.4% of websites contained inaccurate information.

There were inaccuracies or prejudicial information which may direct patients to ART rather than specific male factor treatment. The authors point out that this should be viewed as an opportunity for increased involvement by the urologic community with these clinics and improved accuracy and quality of information.

Editorial Comments

It should be noted that this was a prize winning paper not because of the "science" but because it documents an important flaw in the way and what we communicate to patients. The in vitro fertilization "industry" has a bias that directs patient into IVF cycles. It is incumbent upon urologists to be certain that patients have access to good quality information. It was interesting to note that there was not a significant difference in the quality of information presented by academic medical center IVF programs and private practice facilities.

[O-10]

SPERM DNA DAMAGE: CORRELATION TO SEVERITY OF SEMEN ABNORMALITIES

S. I. Moskovtsev, J. Willis, J. White, et al Mount Sinai Hospital, Toronto

Evaluation of male fertility includes assessment of the standard semen parameters (SSP) and may include assessment of DNA damage. However, the relationship between DNA damage and SSP remains controversial. This study examined the relationship of DNA damage to SSP in patients presenting for infertility evaluation. The authors conducted an IRB approved retrospective review of semen samples from 2586 unselected non-azoospermic patients underwent computer-assisted semen analysis and flow cytometry based sperm DNA damage assessment expressed as the DNA Fragmentation Index (DFI). DFI was significantly negatively correlated to sperm concentration, motility, and normal morphology and positively correlated to age ($P < 0.001$). DNA damage increased in relationship to the number of abnormalities in the SSP ($P < 0.001$).



The authors concluded:

1. DNA damage is significantly related to standard parameters of semen analysis
2. DNA damage is significantly related to age
3. The degree of DNA damage increases with the number of abnormal parameters in a sample and is most severe in patients with OAT.

Editorial Comments

The authors demonstrate the relationship between progressively more abnormal semen parameters and abnormal DFI. This is consistent with clinical observations and does not appear to demonstrate any incremental value to DFI assessment in clinical practice in the initial assessment of the infertile male.

[O-13]

IS SOCIOECONOMIC STATUS ASSOCIATED WITH HIGHER INFERTILITY COSTS? AN ANALYSIS OF THE INTERACTION BETWEEN EDUCATION AND INCOME ON TOTAL COST AMONG INFERTILE COUPLES FOLLOWED FOR 18 MONTHS

J. F. Smith, D. Glidden, T. J. Walsh, et al University of California, San Francisco, San Francisco, CA

This study was designed to assess the utilization of reproductive services by individuals of different socioeconomic and educational groups. Prospective cohort of 369 couples followed for 18 months. The infertility cohort was assembled from 8 community and academic reproductive endocrinology clinics and followed for 18 months. Interviews were conducted at enrollment, and at 4, 10, and 18 months. Multivariable linear regression was used to model the relationship between socioeconomic status and total cost of infertility care by assigning standard costs to medication, procedures, etc. Fertility outcomes and key demographic and medical data were determined through interviews and medical record abstraction. The mean cost of infertility care was \$14,500. Couples with an annual household income \geq \$100,000 had a total cost \$4700 more than couples with an income $<$ \$100,000. Couples with at least a college degree had similar increased costs as compared to those without a college education. Infertility costs were \$5900 more for high earning couples with a college degree relative to low earning couples with a college degree. Thus, couples with at least a college education or a larger household income had higher infertility costs.

Editorial Comments

This study codifies what most would expect: access to treatment and the utilization is affected by education and resources. The types of treatments employed are also affected by financial and time considerations. This is a powerful study with societal implication. The same study should be performed in states with mandated infertility services and IVF services.

SMRU Traveling Scholars Summary (Summarized by Stanton Honig, MD)

[O-263]

GENOME-WIDE EPIGENETIC CHARACTERIZATION OF HUMAN SPERM REVEALS DISTINCTIVE CHROMATIN STATES THAT POISE GENES TO GUIDE EMBRYO DEVELOPMENT

S. Hammoud, D. Nix, H. Zhang, J. Purwar, B. Cairns, D.T. Carrell, University of Utah, SLC

The authors report on basic science research on genome-wide DNA methylation, localization and characterization of histones retained in the paternal genome of fertile males. Sperm from fertile donors was utilized for histone/protamine localization of chromatin. Promoters enriched with histone are deficient in DNA methylation in sperm and acquire selective DNA methylation in differentiated cells. High levels of H3K4me3 are present at a few genes of importance in embryonic development. The human sperm epigenome will evaluate spermatogenesis and embryonic developments and totipotent differentiation.

[O-264]

FINAL RESULTS OF THE SURVEY FOR PRESERVATION OF ADOLESCENT REPRODUCTION (SPARE) STUDY: SEMEN PRESERVATION KNOWLEDGE, ATTITUDES, PRACTICES AND BARRIERS

A.M. Shah, T.S. Kohler, L.A. Kondapalli, S. Chan, T.K. Woodruff, R. Brannigan. Department of Urology, Northwestern University, Chicago, IL; Department of Obstetrics & Gynecology, Northwestern University, Evanston, IL

The authors report on the results of a questionnaire based assessment of adolescent health care providers regarding fertility preservation. It included a 19-item study done through Survey Monkey, dealing with semen preservation knowledge, attitudes, practices and barriers. 209 respondent questionnaires were obtained, including 181 pediatric oncologists. 85% offered sperm banking to pubertal patients within one week of diagnosis. Thoughts about estimated cost for cryopreservation of sperm ranged from \$100,000 – \$500,000. In the event of death, 46% recommended that banked sperm be thawed and destroyed, 37% recommend it be given to parents and 23% recommend donating the sperm to a research facility. The most likely reason NOT to recommend cryopreservation was a patient having a poor survival prognosis or an aggressive disease requiring immediate initiation of treatment. This study was supported by the Oncofertility consortium NIH grant.

[O-265]

SERTOLI CELL-ONLY PATTERN (SCO) DOES NOT ALWAYS CAUSE ELEVATED FSH: IMPACT ON SPERM RETRIEVAL RESULTS IN NON-OBSTRUCTIVE AZOOSPERMIA (NOA)

K. Lin, MD Sammel, R. Ramaswamy, P.N. Schlegel, Reproductive Endocrinology & Infertility, University of Pennsylvania, Philadelphia, PA; Department of Biostatistics and Epidemiology, University of Penn-



Review of the ASRM 2008

sylvania School of Medicine, Philadelphia, PA; Urology, NYPH-Weill Medical College of Cornell University, New York, NY

The authors evaluate predictors of successful sperm retrieval by MICRO TESE in patients with non-obstructive azoospermia and sertoli cell only. 373 patients with sertoli cell only were evaluated. MicroTESE was successful in 45% of patients with sertoli cell only. Interestingly, patients with small testes and high FSH had a higher sperm retrieval rate in THIS subgroup. Pregnancy rates were about 50% if sperm was found.

[O-266]

HYPERGLYCOSYLATED HUMAN CHORIONIC GONADOTROPIN (HhCG): A NOVEL FINDING IN SEMINAL PLASMA

R.B. Allen, A. Li, M.F. Landay, F.Z. Stanczyk, R.J. Paulson, R.Z. Sokol, Obstetrics and Gynecology, USC Keck School of Medicine, Los Angeles, CA

The authors evaluated levels of hyperglycosylated hCG (HhCG) in seminal plasma. They evaluated semen of normal men for HhCG levels. There was an inverse correlation between the HhCG level and both the ratio of hCGR mRNA and sperm concentration. The authors report for the first time HhCG being present in seminal plasma. The relationship between HhCG and expression of the hCG receptor may be important in spermatogenesis.

[O-267]

CHANGES IN PROSTATE SPECIFIC ANTIGEN (PSA) WITH CLOMIPHENE CITRATE: PRELIMINARY DATA ON INFERTILE HYPOGONADAL MEN

A. Nisbet, S. Honig, Urology, University of Connecticut, Farmington, CT; Urology Center, New Haven, CT

The authors evaluate the effects of clomiphene citrate on infertile hypogonadal men. 24 men were followed for an average of 5 months. Hormone and PSA levels were recorded on all patients post therapy. There was no difference in PSA levels after clomiphene citrate therapy and all PSA's were less than 2.0. Preliminary data suggest that with increasing testosterone and FSH levels, clomiphene citrate does NOT increase PSA levels in the short term.

[O-268]

MAP: MICRO-TESTICULAR SPERM EXTRACTION AVOIDANCE PROGRAM

G. Patry, K. Jarvi, E.D. Grober, K.C. Lo, L. Spencer, Urology Division, Mount Sinai Hospital, University of Toronto, Toronto, ON, Canada; University of Toronto, Toronto, Canada

The authors report on the possibility of finding sperm in the ejaculate in patients with non-obstructive azoospermia. Patients with NOA were asked to give multiple semen samples prior to ICSI. 17 pts with azoospermia were included in the study. 29% (5/17) had motile sperm in their

ejaculate at some point prior to ICSI that could be cryopreserved and used for ICSI. An average of 3 samples were given/pt. Of note, some of these patients had intermittent azoospermia, in fact 80% of those that were able to cryopreserve had some sperm at some time in the ejaculate. The authors recommend more than 2 semen analyses to see if sperm can be frozen for ICSI (on the average-3 specimens) to potentially spare the patient a TESE procedure.

WEDNESDAY, NOVEMBER 13, 2008

The Society for Male Reproduction and Urology

“Sperm Biochemical Markers and Their Relationship to Sperm Morphology”

SMRU Minisymposium

By Gabor Huszar, MD

Wednesday, November 13, 2008

ASRM, San Francisco

Summarized by Natan Bar-Chama, MD

Accurate parameters assessing sperm quality and predicting fertility outcomes continues to challenge the field of reproductive medicine. This lecture highlighted this challenge and focused on the scientific literature associated with the HA (Hyaluronic Assay). The basis for this assay is that as sperm mature, the cytoplasm is extruded and the sperm membrane acquires through remodeling the formation of sperm zona pellucida and hyaluronic acid (HA) binding sites. Therefore, the ability of sperm to bind exogenously to HA is an indicator of sperm maturation and fertilization potential. Immature human sperm are noted for the presence of excess cytoplasmic material and the lack of the maturity marker galactosyl transferase, have diminished ability to bind to the zona pellucida or to HA and demonstrate a higher concentration of abnormal morphology. The opposite is also true; whereby sperm that are able to bind to HA are more mature and lack cytoplasmic retention, excess persistent histones, apoptotic processes, DNA chain fragmentation, and show a normal frequency of chromosomal aneuploidies. The speaker presented in detail data from an upcoming publication demonstrating that when compared to unprocessed sperm, the sperm fraction isolated following binding in vitro to HA demonstrate a 3.04x fold increase in normal strict kruger morphology (which is similar to the 4.2x increase noted when a sperm fraction is selected based on in-vitro binding to human zona pellucida.) The author concluded that the sperm-HA binding assay may offer an advantageous test in addition to sperm morphology that reflects normal sperm development and indicates maturational events that affect DNA integrity and aneuploidy frequency and may therefore is a useful diagnostic tool in the evaluation of the infertile male especially if the couple are proceeding with assisted reproductive technologies. ☞



SSMR Elections

Once again, the Society for the Study of Male Reproduction will be holding elections online. The ballot will be placed in the Members Only section of the website (www.ssmr.org). All voting members will be able to vote from March 2 – April 3, 2009.

The positions open for election this year are secretary and member-at-large. We encourage all voting members to participate in this process. To log in to the Members Only section you will need your username (which is your last name), as well as your password (which is your member number). You can request your password at the sign-in if you do not have that information available. We hope that this will make it easier to stay involved in our society and make your voice heard. ☞

SSMR 2009 Endocrinology of Male Reproduction

Program Chair: Peter N. Kolettis, MD

Endocrine disorders are uncommon but treatable causes of male infertility. This year's program will review endocrine disorders and their relationship to male reproduction and sexual function. Among the controversies to be discussed are the definition, diagnosis and treatment of male hypogonadism.

Certainly, with availability of alternative routes of testosterone supplementation, marketing, and media attention, the diagnosis and treatment of hypogonadism has increased dramatically. Many questions remain, including: What is *low testosterone*?, What are symptoms of hypogonadism?, Do asymptomatic men need to be treated?, What are the consequences of treatment vs. no treatment?, How strong is the evidence to support these recommendations?, What about testosterone supplementation and prostate disease?, and What should we do with an infertile man with low testosterone? The program will also address two other related issues, manipulation of the hypothalamic-pituitary-testicular axis prior to chemotherapy and anabolic steroid use and male infertility.

Finally, as a natural extension of a discussion of endocrine disorders and male reproduction, the program will address non-surgical contraception. We are fortunate to have Dr. John Amory, one of the leaders in this field, review this topic and discuss key issues, including efficacy, compliance, and reversibility.

We hope the program is educational for the audience and will give them new information that they can apply to the care of their patients. We invite all members of the Society for the Study of Male Reproduction and all attendees of the American Urological Association meeting to attend and look forward to a program which is sure to generate discussion and debate.

2009 SSMR Meeting Endocrinology of Male Reproduction

Needs and Objectives

Needs:

- What the urologist needs to know about the endocrinology of male reproduction.
- Clinically relevant physiology of the hypothalamic-pituitary-testicular axis
- Definition, diagnosis and treatment of hypogonadism
- Complications of testosterone treatment
- Anabolic steroid induced male infertility
- Non-surgical contraception

Objectives:

At the conclusion of the session the participant will:

- Identify the clinically relevant physiology of the hypothalamic-pituitary-testicular axis
- Assess the diagnosis and treatment of hypogonadism and complications from treatment
- Describe the negative reproductive effects of anabolic steroids
- Recognize possible future non-surgical male contraceptives ☞





2009 SSMR Annual Meeting Program Schedule

“Endocrinology of Male Reproduction”

Tuesday, April 28, 2009
Hilton Chicago
720 South Michigan Avenue
Chicago, Illinois 60605
International Ballroom South, 2nd Floor
1:00 p.m. – 5:30 p.m.
Program Chair: Peter N. Kolettis, MD

12:15 p.m. – 1:00 p.m. Special Symposium
Location: Continental Ballroom C, Lobby Level
“Diagnosis and Management of Hypogonadism”
Abraham Morgentaler, MD

1:00 p.m. – 1:10 p.m. Introduction
Peter N. Kolettis, MD

1:10 p.m. – 1:35 pm Physiology of the Hypothalamic-Pituitary-Testicular Axis
Sijo J. Parekattil, MD

ABNORMALITIES OF THE HYPOTHALAMIC-PITUITARY-TESTICULAR AXIS

1:35 p.m. – 1:55 pm Hypogonadotropic Hypogonadism: Update on Diagnosis and Management. Are There Any New Treatments on the Horizon?
John K. Amory, MD

1:55 p.m. – 2:15 p.m. Anabolic-Steroid-Induced Male Infertility
Larry I. Lipshultz, MD

2:15 p.m. – 2:35 p.m. Treatment of Low Testosterone in the Infertile Hypogonadal Male
Darius A. Paduch, MD, PhD

2:35 p.m. – 3:00 p.m. Questions and Answers

3:00 p.m. – 3:15 p.m. BREAK

3:15 p.m. – 3:20 p.m. Humor in Reproductive Medicine
Stanton C. Honig, MD

3:20 p.m. – 3:40 p.m. Fertility Counseling and Treatment Prior to Cancer Treatment
Daniel H. Williams, IV, MD

3:40 p.m. – 4:05 p.m. Insights into Androgens and Erectile Function
Wayne J.G. Hellstrom, MD

4:05 p.m. – 4:45 p.m. Update on Non-Surgical Male Contraception: What Should We Expect in the Next 10 Years?
John K. Amory, MD

4:45 p.m. – 5:00 p.m. Questions and Answers

5:00 p.m. – 5:30 p.m. Annual Business Meeting ☼



You're invited to attend the 2009 SSMR Annual Banquet



**Tuesday, April 28, 2009
Lincoln Park Zoo - Kovler Lion House
2001 North Clark Street
Chicago, IL**

Register for the banquet quickly and easily online at www.ssmr.org

Have dinner at the wildest place in Chicago!

The Lincoln Park Zoo is a world of wildlife in the shadow of skyscrapers. Located within a verdant park, just minutes north of downtown, the zoo is an oasis where animal lovers can hear a lion's roar echo off nearby apartment buildings and see gorillas climb trees as the Sears Tower looms in the distance

Enjoy a delicious dinner in the Kovler Lion House and marvel at the kings of the jungle as they prowl past, safely secured in their cages. Learn more about the lions' breeding habits and other general information during the keeper presentation and don't be shy about asking questions!

Transportation departs the Hilton Chicago at 6:15 p.m.

Cocktails 7:00 p.m.
Dinner 8:00 p.m.

If you have any dietary needs, please contact the SSMR office at (847) 517-7225 prior to April 14, 2009.

Casual attire is appropriate.

of people attending _____ x \$70.00 per person = \$ _____ (on and before April 14, 2009)

of people attending _____ x \$80.00 per person = \$ _____ (after April 14, 2009)

**Please return this form to the SSMR office
no later than April 14, 2009.**

SSMR
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Phone: (847) 517-7225
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Email: info@ssmr.org
Website: www.ssmr.org

Name: _____

Spouse/Guest: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Method of Payment:

Check (payable to the SSMR) Visa MasterCard

Card #: _____ Exp. Date: _____

Signature: _____



Society for the Study of Male Reproduction

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The Society for the Study of Male Reproduction (SSMR) encourages organizations and individuals to link to www.ssmr.org.

Mark Your Calendars!

Online Voting for SSMR Leadership

From March 2 – April 3, 2009, you will be able to vote for the 2009 – 2010 open SSMR leadership positions on line at www.ssmr.org.

Exercise your RIGHT TO VOTE!

34th ASA Annual Meeting

April 4 – 7, 2009
Hyatt Regency Philadelphia at Penn's Landing
Philadelphia, Pennsylvania

XX North American Testis Workshop

April 1 – 4, 2009

Andrology Lab Workshop

April 4 – 5, 2009

ASA Special Symposium

April 4, 2009

SSMR Annual Meeting at the AUA Annual Meeting

Tuesday, April 28, 2009
Chicago, Illinois
Hilton Chicago, International Ballroom South, 2nd Floor



Two Woodfield Lake
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