



Negotiating Competing Models

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Ideological Disclosures

- Liberal arts major, clinical psychologist, sex therapist, animal researcher, neuroscientist
- I gravitate toward biological reductionism
- I have conducted animal research
- I just published a paper on future tx for FSD



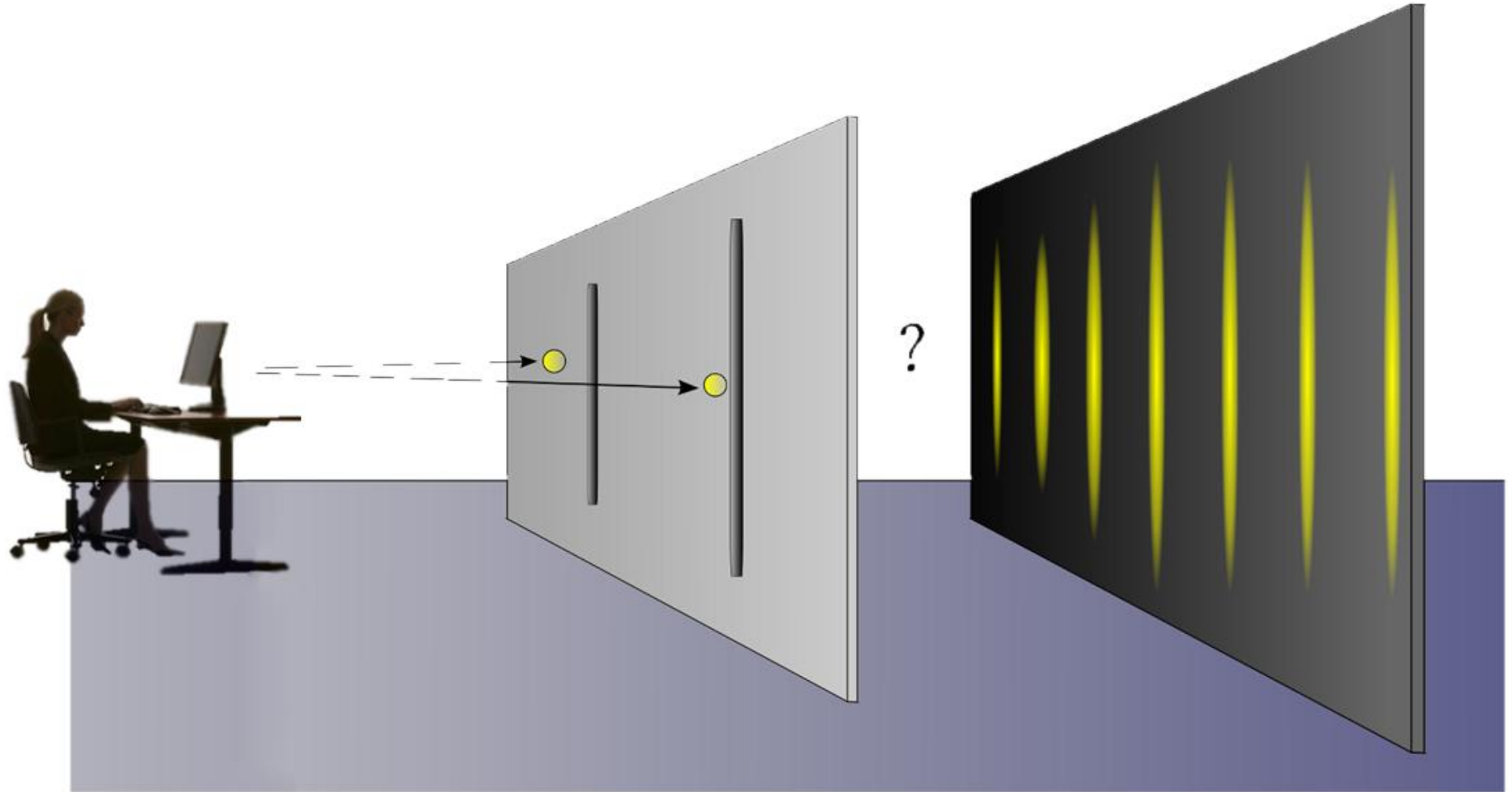
FUTURE TARGETS FOR FEMALE SEXUAL DYSFUNCTION.

J Sex Med 2016 Aug;13(8):1147-65

Melissa Farmer, Hana Yoon, Irwin Goldstein

Female sexual function reflects a dynamic interplay of central and peripheral nervous, vascular, and endocrine systems. The primary challenge in the development of novel treatments for female sexual dysfunction is the identification and targeted modulation of excitatory sexual circuits using pharmacologic treatments that facilitate the synthesis, release, and/or receptor binding of neurochemicals, peptides, and hormones that promote female sexual function. To develop an evidence-based state-of-the-art consensus report that critically integrates current knowledge of the therapeutic potential for known molecular and cellular targets to facilitate the physiologic processes underlying female sexual function.

Feminist Science is like the Double Slit Experiment



*Light can manifest as both particles or waves
depending on how it is observed.*

The Sexual Psychophysiology Laboratory

The University of Texas at Austin

Cindy Meston, Ph.D.

www.mestonlab.com



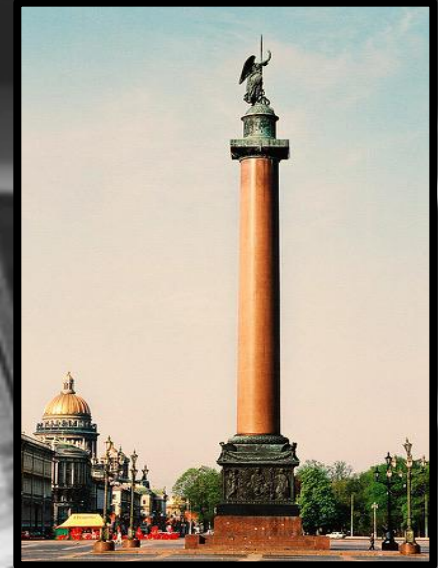
- Female sexual psychophysiology
- Qualitative analysis of sexual fantasy content
- Expressive writing in women with history of sexual abuse
- Sympathetic nervous system impact on sexual arousal
- Clinical trials for ginkgo biloba and yohimbine/l-arginine
- Context-dependent impact of anxiety on desire/arousal
- Women's causal attributions for sexual problems
- Sexual self-schema
- Impact of ethnicity and religion on sexuality



LESSON #1: Women are encountering sexual stimuli all the time;

but are we aware of it, and do we care about it?

LESSON #2: Pure physiological measures cannot capture sexual arousal.



Neutral Intercourse

Foreplay

Oral Stimulation

LESSON #3: Survivalist Model of Conducting Sex Research



Female sex research → Reproductive Health/Fertility

Female sexual function → Female sexual **DYSFUNCTION**

LESSON #4: Communities of researchers exist who are passionate about understanding female sexuality, like ISSWSH

Cindy..... the Probettes...



and Irwin!

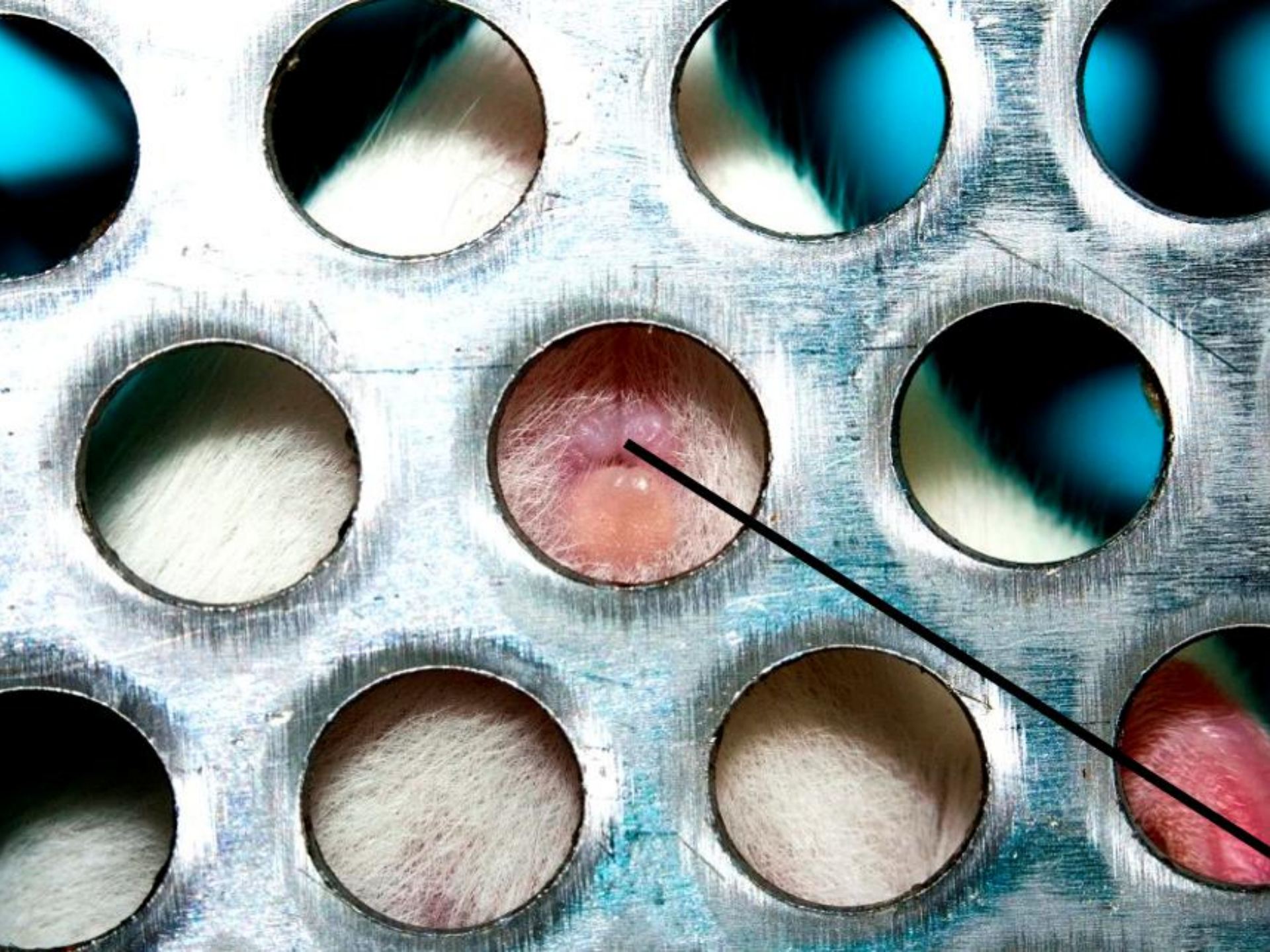


My early perceptions of ISSWSH

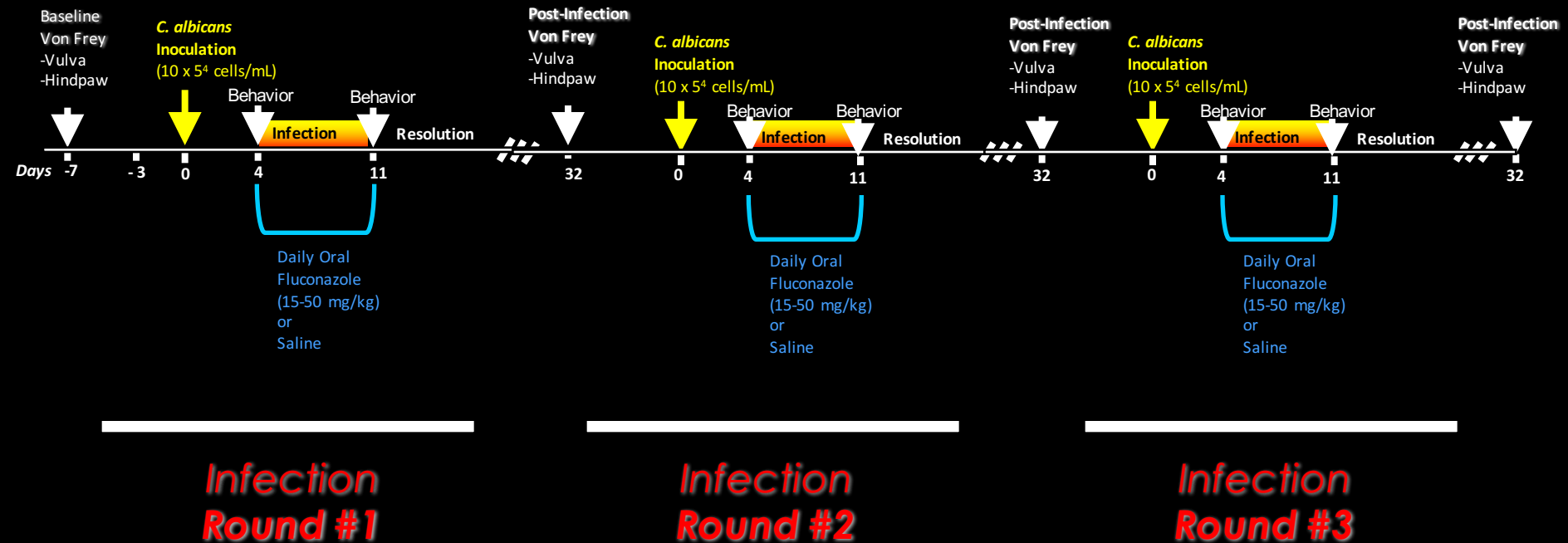
- Opinionated, intelligent people!
- Biopsychosocial model: broad range of topics presented
- Constant questioning of Masters & Johnson's and Kaplan's original constructs and DSM definitions of FSD
- Meet and collaborate with researchers, clinicians, etc

...and my frustrations

- Philosophizing physiological processes
- Testosterone as woman's savior



Mouse Model of Vulvodynia: Study Design

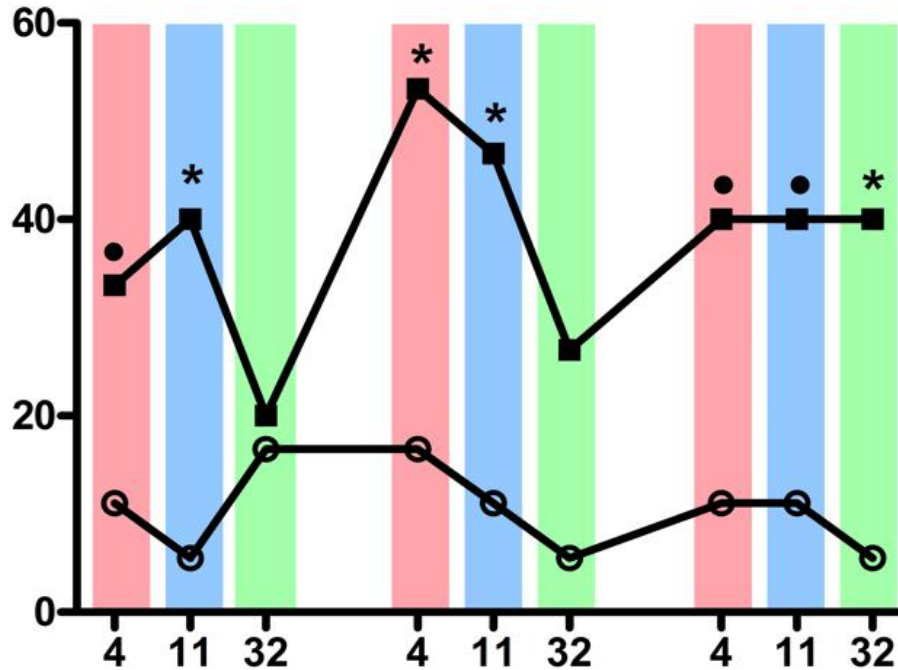




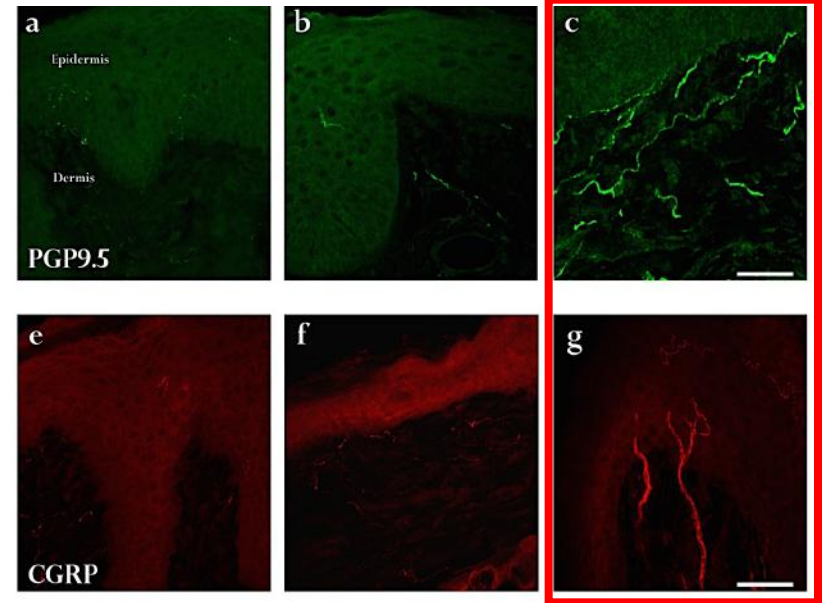
Mice Develop Vulvar Pain and Increased Vulvar Innervation after Repeated Yeast Infections

Farmer et al., 2011

% Mice with Vulvar Pain



Vulvar Hyperinnervation



* $p = 0.02$ Fisher's Exact Test (one tailed)

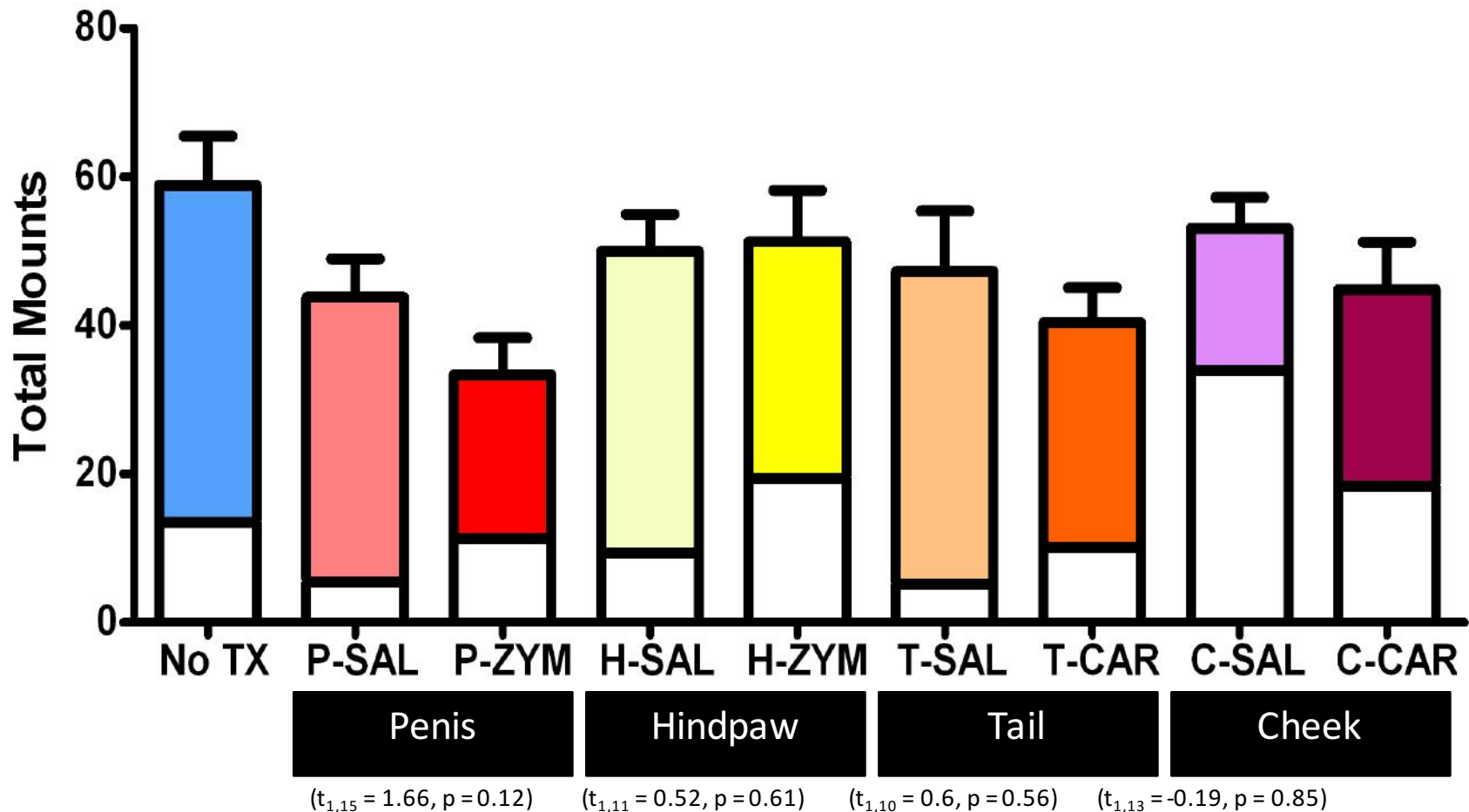
All mice treated with antifungal medication; 5.5% of saline controls exhibited vulvar hypersensitivity





Open Arena:

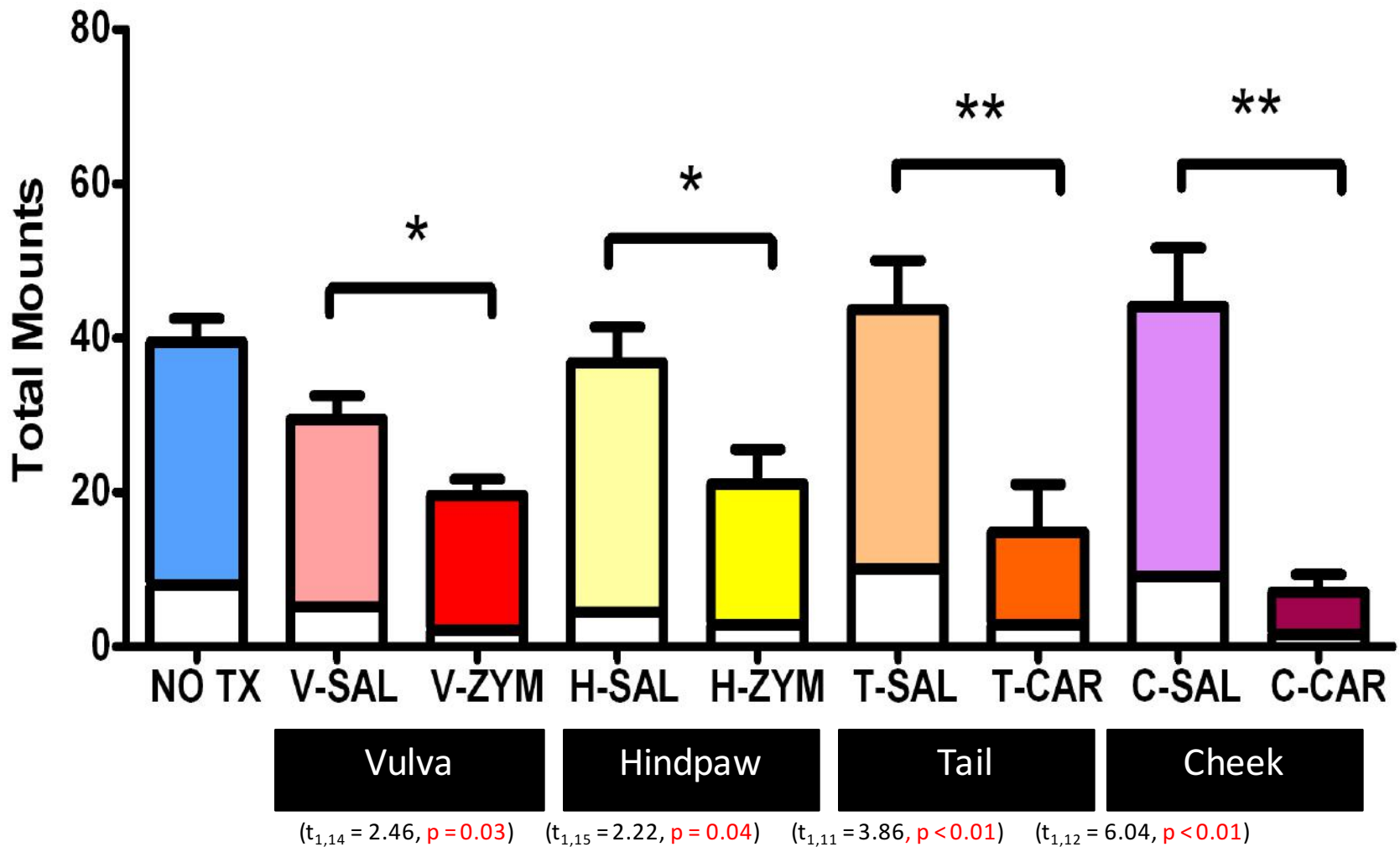
Males show *no change* in sexual behavior with pain





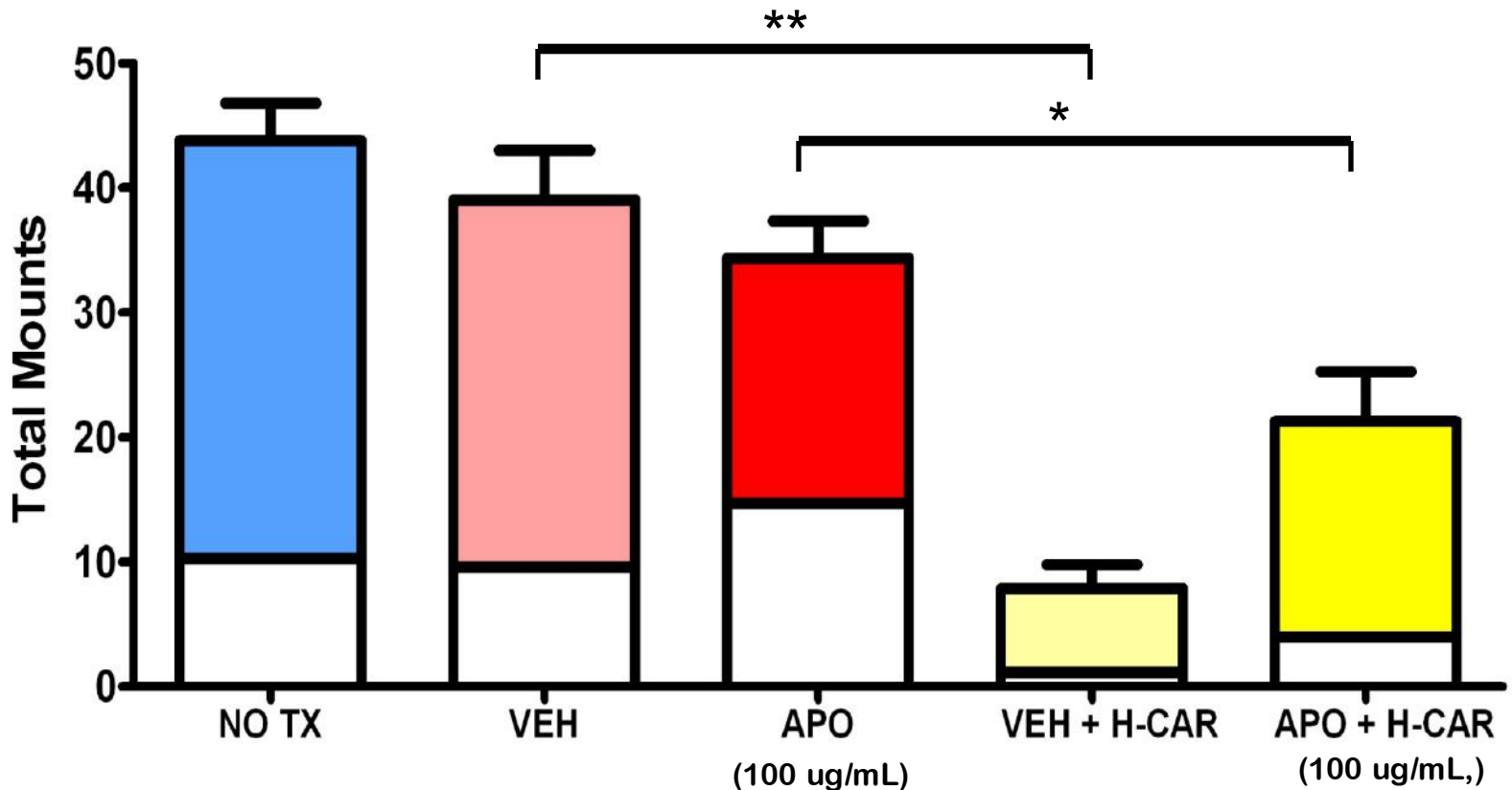
Paced Mating:

Females show *reduced* sexual behavior with pain



♀ *Paced Mating:*

Apomorphine (*D1/D2 agonist*) partially **restores** altered sexual behavior following tonic pain



Two-way ANOVA:

Main effect of pain on mounting frequency ($F_{1,29} = 6.87$, $p = 0.01$)

No main effect of APO ($F_{1,29} = 0.88$, $p = 0.36$)

Sig. pain x APO interaction ($F_{1,29} = 5.34$, $p = 0.03$)

LESSON #5: I needed to surround myself with passionate others

2015 ISSVD, ISSWSH, and IPPS Consensus Terminology and Classification of Persistent Vulvar Pain and Vulvodynia

*Jacob Bornstein, MD, MPA,¹ Andrew T. Goldstein, MD,² Colleen K. Stockdale, MD, MS,³
Sophie Bergeron, PhD,⁴ Caroline Pukall, PhD,⁵ Dennis Zolnoun, MD, MPH,⁶
and Deborah Coady, MD,⁷*

*On behalf of the consensus vulvar pain terminology committee of the International Society for the Study of
Vulvovaginal Disease (ISSVD), the International Society for the Study of Women's Sexual Health (ISSWSH),
and the International Pelvic Pain Society (IPPS)*



ISSWSH Program Content Over 5 Years

Topics

Biomedical
Desire/Arousal
Couple Issues
Culture
Development
Trauma
Neuroscience
Impact of Chronic Disease
Physiotherapy
LGBT/Alternative Sexualities
<i>Diagnostic Issues</i>
Teaching Trainees, Patients
Multidisciplinary Assessment/Treatment

2010 Topic	2011 Topic	2012 Topic	2013 Topic	2014 Topic
Pregnancy & Sexuality	Sexual Health Concerns of Disabled Women	Trauma & Sexuality	Sexual Mind Mapping	Are Women Predetermined to Develop Sexual Dysfunction?
The Unconsummated Marriage	Genetic Basis of Female Sexuality	Sexual Consequences of Gynecological Surgery	Sexual Pharmacology	A Billion Wicked Thoughts: What the Internet Reveals about Sexual Desire
Hormones: The Good, Bad & Ugly	DHEA: Precursor Hormone or Alternative Therapy?	Sexuality after the Diagnosis of Breast Cancer	Male Sexual Dysfunction for the Female Sexual Health Provider	Rebuilding Intimacy after an Affair: An Integrative Approach
Update on Testosterone	Sexuality for Women with Cancer	Hormonal Contraception & Its Impact on Sexuality	Testosterone Use in Pre- and Postmenopausal Women	Cultural Context of Sexual Difficulties with Case Representation of Genital Practices from Around the World
<i>HSDD Update</i>	<i>Controversy Over the Existence of Sexual Addiction</i>	<i>The Couple</i>	<i>The Female Orgasm</i>	<i>Sexual Health Implications of Androgen Receptor</i>
<i>New Innovations in Female Sexuality</i>	<i>Sex Research & Setting Up Clinical Trials</i>	<i>Monogamy</i>	<i>Adolescent Female Sexuality</i>	<i>Sexual and Gender-Based Violence</i>
<i>Expanding the Sexual Horizon</i>	<i>Motivation & Behavior for Sexual Activity in Women</i>	<i>Differences in Treatment Paradigms between Europe & North America</i>	<i>Updates in Vulvovaginal Atrophy Surveys</i>	<i>Update on Vulvovaginal Health</i>
<i>Sexually Transmitted Infections</i>	<i>Neuro-Bio-Experimental Evidence of the Orgasm</i>	<i>Testosterone Use in N. America vs. Europe</i>	<i>Examining the Business of Sex</i>	<i>Management of Pudendal Neuropathy</i>
	The Safety of Treating Women with Testosterone for HSDD	Unveiling Eros: Sexuality in Jewish, Christian & Muslim Theology		
	Efficacy of Testosterone in Postmenopausal Women			
Does Pharmaceutical Industry Contribute to Valuable Research in Sexual Medicine? Nutraceuticals & Enhancers: Fact or Fiction? Examining the Evidence	Towards an Understanding of Love	Do Ask, Do Tell: caring for Lesbian & Bisexual Women	Impact of Contraception on Female Sexual Function	The Practice of Sexuality Counseling & Sex Therapy
Practical Approaches to Estrogen & Progesterone Therapy	Female Genital Cutting: Culture, Ethics & Sexual Health	Oral Sex & HPV: A Clinical Update on Risk, Detection & Prevention of Oropharyngeal Cancer	Sexual Health Communication Skills for Communicating with Women with Cancer	ISSWSH Nomenclature Consensus Meeting - Report & Discussion
	The Human Sexuality Education of Medical Students: Old Paradigms and New Solutions	From Immaculate Conception to Mindful Birth: Managing Penetration Disorders in the Childbearing Years	Sexual Ergonomics: Strategies for Comfortable Pleasure	Multidisciplinary Approach to Evaluation of & Management of Female Genital Sexual Pain
				Lesbian & Transgender Sexual Health Issues

LESSON #6: ISSWSH Scientific Program Chair Controls Most of the Content

WELCOME MESSAGE

“
Sexual pleasure is a legitimate right of the human being.
- Samael Aun Weor
”

It is my pleasure and privilege to invite you to participate in the 2017 Annual Meeting of ISSWSH in Atlanta, Georgia. The theme of the scientific program is *The Embodied Mind*, and we have an intriguing line-up of speakers and topics that will explore the core components of the mind-body relationship as they relate to female sexual expression, physiological milieu, resilience, and change.

ISSWSH is the only society devoted to a multidisciplinary understanding of female sexuality across the lifespan and is led by a passionate group of international academics, clinicians, health professionals, and scientists who have largely shaped the field of female ~~sexual health research. Our attendees include gynecologists, sex therapists, clinical psychologists, patient advocates, physical therapists, family physicians, nurse practitioners, basic scientists, clinical researchers, sex educators, and trainees who share this passion for understanding and actively promoting female sexual health. Collectively, we believe that women are entitled to health, pleasure, and freedom from pain.~~

The field of female sexuality is approaching a critical turning point in its evolution. We are positioned to explore, question, and potentially redefine the traditional sexual constructs we have inherited, as these ideas do not capture the broad spectrum of sexuality we encounter in the streets, in the clinic, in the lab, or in our homes. This freedom is both exhilarating and terrifying. We are entering one of the most exciting periods of change in modern sexology. Every step forward is a small revolution.

REMODELING HISTORY

Looking back, we have come a long way from Masters and Johnson's groundbreaking work that both buoyed and to some degree restricted the field's evolution. As Helen Singer Kaplan aptly summarized in 1974, "The human sexual response is a highly rational and orderly sequence of physiological events, the object of which is to prepare the bodies of two mates for reproductive union." Masters and Johnson certainly constructed a rational and orderly sexual gestalt. Their biomechanical model of sexual response (excitement, arousal, plateau, orgasm, and satiety) was based on a narrow definition of the ultimate form of sexual expression: genital arousal with vaginal penetration leading to orgasm. This focus is precisely why the classic reductionist model has failed to account for the broad range of sexual variability we observe in women. In the words of the late philosopher Robert Solomon, "Orgasm is the 'end' of sexual activity, perhaps, but only in the sense that swallowing is the 'end' of tasting a Viennese torte."

Ironically, the pivotal events that would challenge the Masters and Johnson monolith began with the vaginal insertion of phallic diodes designed to measure vasocongestion.

In a series of female sexual psychophysiology (mind-body) experiments conducted in the 1990s, pioneering researchers in the Netherlands and North America performed a series of laboratory experiments in which women viewed erotic film clips after self-inserting a vaginal photoplethysmograph, a term for a device that measures light-derived (*photo*) increases (*plethysmos*) of fluid with a recording (*graph*) used to measure genital vasocongestion. These researchers reported that women exhibited varying levels of awareness of their genital sexual arousal, yet this awareness appeared to be unrelated to their subjective experience of arousal and sexual functioning (Rosen and Beck noted this discordance as early as 1988). These controversial findings have since been replicated across numerous international laboratories, using multiple methods to measure sexual desire, subjective sexual arousal and genital sexual arousal. After more than two decades of experimentation, intensive debate, proposals of new models, and *many* discarded erotic films, deciphering the mind-body interaction remains at the crux of understanding female sexual health and dysfunction. Critically, Masters and Johnson's terminology and early data have been used to parse these constructs and to validate their accuracy.

<http://www.isswshmeeting.org/about/welcome-message>



Symposia

The Adapting Brain

Rhythmic Entrainment of Trance, Orgasm...Adam Safran
Neuroplasticity of Sexual Function...Janniko Georgiadis
Sexual Addiction and New Learning.....Nicole Prause

Trauma and Sexuality

Caring for Survivors of Sexual Assault.....Harise Stein
Sexuality & PTSD in Women in the Military...Ray Rosen
Pharmacotherapy for PTSD & comorbidities..Steve Stahl

Persistent Genital Arousal Disorder:

Theoretical Mechanisms.....Jim Pfaus
Clinical Assessment.....Irwin Goldstein
Interview-Based Assessment.....Caroline Pukall

Special Interest Lectures

History of Sexology Lecture

Evolution of Sex Toys.....Lauren Streicher

North American Menopause Society Lecture

TBA

Society for Sex Therapy and Research Lecture

TBA

Proposed Scientific Program

State of the Art Lectures

- | | |
|-------------------------|-------------------|
| 1. Emotion and Desire | Edmund Rolls |
| 2. Chronic Pelvic Pain | Allan Basbaum |
| 3. ISSM Special Lecture | Annamaria Giraldi |
| 4. Female Orgasm | Barry Komisaruk |

Updates from the Experts

Health Correlates of Estrogen Delivery.....Jim Simon
Sexual Desire & Arousal Disorders.....Anita Clayton
Advances in Vulvodynia.....Andrew Goldstein


Personalized Physical Therapy

Visceral Manipulation.....Dee Hartmann
Pain Mechanism-Based Therapy.....Sandy Hilton

Panel Debate

Challenges for Behavioral & Pharmacological
Treatments for Female Sexual Dysfunction





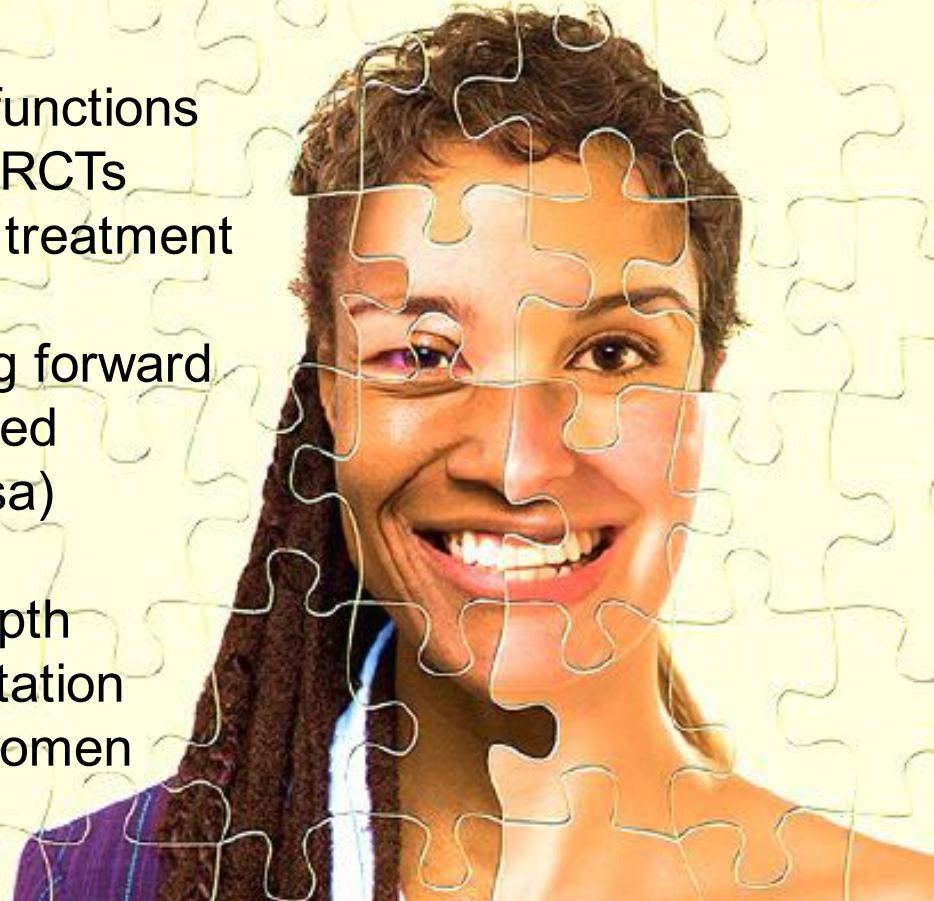
LESSON #7:

Lift each other UP

What can we make of the future?

By maintaining ongoing dialogue based on common ground...

1. We're on the cusp of re-defining core concepts of female sexual function (and therefore dysfunction)
→ “quagmire” of DSM-5 and ICD-11
2. Change how the biomedical model functions
ex. Requiring inclusion criteria for RCTs
to include previous behavioral treatment
3. Share resources, data, ideas moving forward
(qualitative data can be incorporated
into quantitative studies, vice versa)
4. Women who value the breadth & depth
of female sexuality will lead interpretation
and use of research generated by women



APPROACH ME!

#Farmer_MindBody

“A scientist is never certain. We all know that. We know that all our statements are approximate statements with different degrees of certainty... There is no learning without having to pose a question. And a question requires doubt...”

It is possible to live and not know.”

-Richard Feynman

