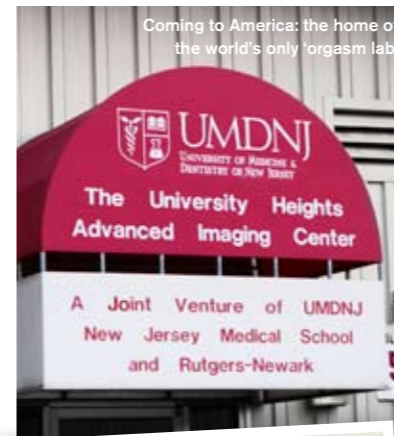


# INSIDE THE orgasm lab

Yes, really! Cosmo's discovered the secrets of bigger, better orgasms. Tanya de Grunwald reports



Coming to America: the home of the world's only 'orgasm lab'



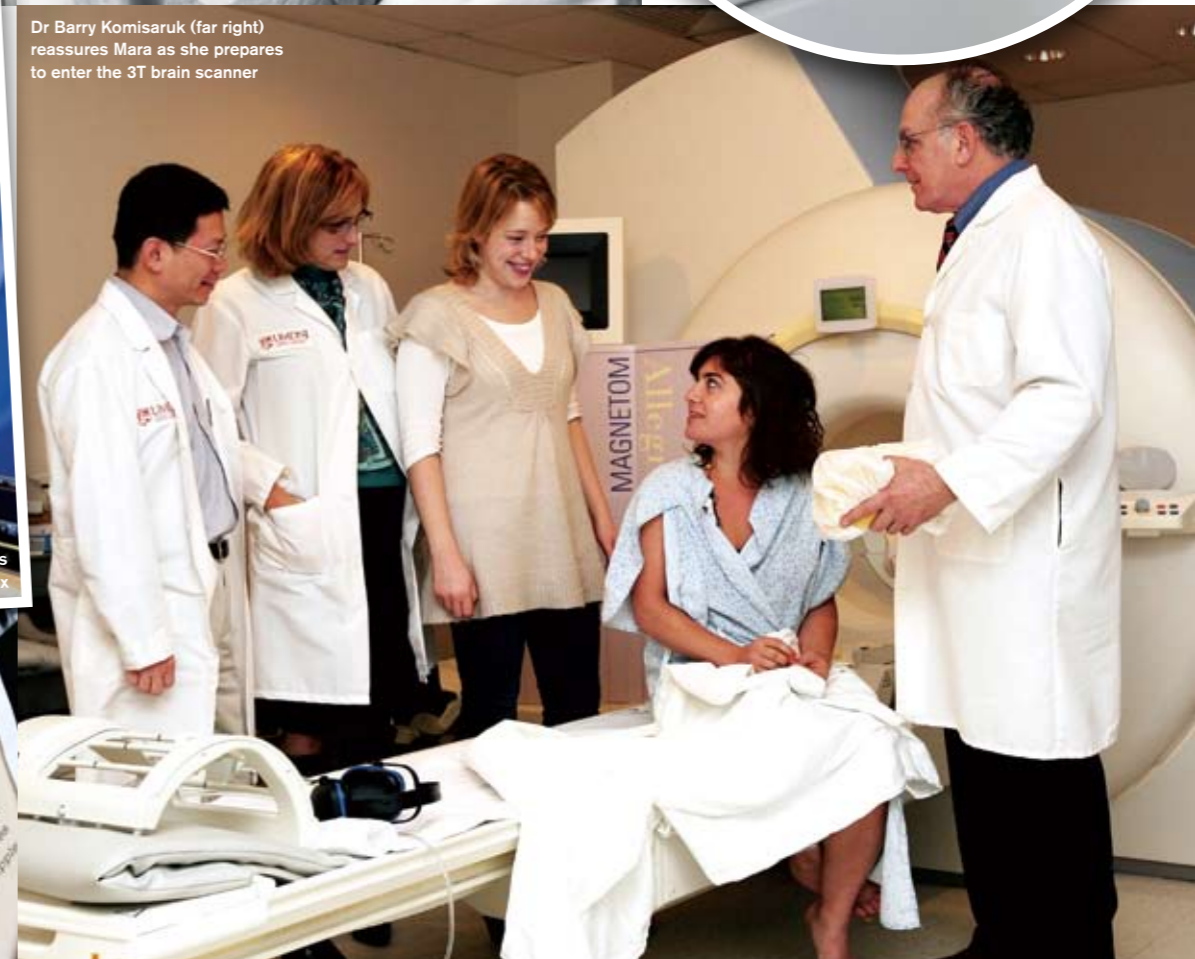
Even Cosmo's intrepid reporter looks taken aback by Nan Wise's stimulator



"I'm coming! But you probably knew that already"



The yellow and orange areas indicate Mara is about to climax



Dr Barry Komisaruk (far right) reassures Mara as she prepares to enter the 3T brain scanner



The orgasm lab's research is groundbreaking - and earth-moving!

**T**wenty minutes from Manhattan, at one of America's best hospitals, a 27-year-old woman is having a brain scan. Behind a glass partition, six medical professionals cluster around a screen showing the contents of her skull. "You're doing great," a doctor's voice reassures her, via the intercom. "Do you need more lube?" Ignore the medical setting - this young woman is perfectly healthy. In fact, she's feeling fabulous. She's just about to have an orgasm - for science. *Cosmo* has been given exclusive access to the very latest experiments being conducted inside the so-called 'orgasm lab' - and I'm spending the day with the team of boffins who spend

their days puzzling over the many mysteries of female sexual pleasure. By examining a woman's brain while her intimate bits are being pleased, doctors hope to answer questions about our sexual hard-wiring. Why do some of us have difficulty reaching orgasm? Can anything help us come? And why do orgasms feel so good? (We know the brain floods with oxygen and chemicals, but why should that make us forget our own name?) "The more

## 'RESEARCH FROM THE ORGASM LAB REALLY COULD BOOST THE SEX LIFE OF EVERY WOMAN ON THE PLANET'

we understand sexual pleasure, the closer we get to being able to improve it," says Dr Barry Komisaruk, the scientist leading the study. "For women who have trouble climaxing, we're looking at treatments, whether psychological, physical, or pharmaceutical. And for women who have orgasms but want a deeper sensation, the future looks bright." This research really could boost the sex life of every woman on the planet. At this point, I should mention I've been asked to *take part* in the study. So far, I've declined - having electrodes glued to my scalp while a stranger tinkers with my girly bits to see what gets my rocks off... I can't

say I fancy it. Little do I know that eight hours later I'll find myself considering lending my privates to medical research. **SCIENCE IN ACTION** On arrival, I'm jittery enough having agreed to observe a live procedure. Being straight and not into group sex, I realise I've never seen another woman climax before. Now I'm about to see another girl get her jollies, while I perfect my gooseberry impression. Will it be weird? Or - yikes - a turn-on? Today's 'participant' is Mara Altman, 27, a journalist from Brooklyn. This is her third visit to the lab. In the past, Mara says she's had trouble climaxing - she's just written a book about it - but then she heard about the orgasm lab. Participants get £70 for

their time, but that's not why Mara does it. "My friends said, 'You're going to come... in a machine?' but I think the work's important for women everywhere. And it's cool to have a picture of my brain having an orgasm." Wasn't she scared? "My main worry was not being able to orgasm in such a clinical environment. Plus - and I know it's silly - I worried that by looking inside my head, the scientists would know what I was fantasising about!" While Mara changes into her surgical gown and walks through a metal detector (as a super-strength magnet, any

objects containing iron will hurtle towards the scanner; it's so powerful, it will also harm a foetus, so all volunteers need pregnancy tests beforehand), I talk to Barry. At 67, he's dedicated the past 25 years to the study of the female orgasm and says he's measured around 200 during his career. Wait a second - sixty-something guy who regularly watches what most women consider a private moment? But it's totally respectable - in fact, Barry's one of the most esteemed neuro-scientists in his field. Any tests that involve direct contact with the women are carried >



Orgasm lab participant, writer Mara Altman

out by female nurses and, when I ask about orgasms, Barry doesn't leer, he yabbers on about neurotransmitters, making my GCSE in biology feel seriously lightweight.

When Barry started his study on women back in the '80s, he was stunned by how little research had been done – especially when scientists knew so much about other bodily processes. "I think all those middle-aged men were simply embarrassed!" he laughs. "But it seemed crazy that there was this hugely powerful physiological event that, scientifically, they knew zero about." Luckily for ladies everywhere, fascination trumped embarrassment and Barry pressed on with his studies.

**THE BIG TEST**

Back at the scanner, Mara removes her knickers and hands them to Nan Wise, Barry's collaborator (also a qualified sex therapist), who pops them in her lab coat pocket. Mara lies down on the platform of the scanner (aka 'the 3T' – it has three 'teslas' of magnetic strength) and is given earplugs to protect her from its deafening clanking. Her head is strapped down with tape (as moving during the scan "distorts data") and a cage – no joke – is put over Mara's face. Her torso's buzzed into the scanner and her bottom half covered with blankets. If I were her, I'd be struggling to picture Brad Pitt right now.

Today, Barry wants to see which bits of Mara's brain are activated when various body parts are poked. After testing her

brain's response to arm-tapping, it's time to stimulate her intimate bits. Nan – nicknamed 'Dr Lube' – enters the room to squirt some goo onto Mara's palm. Then she exits and Mara is left to do her thing.

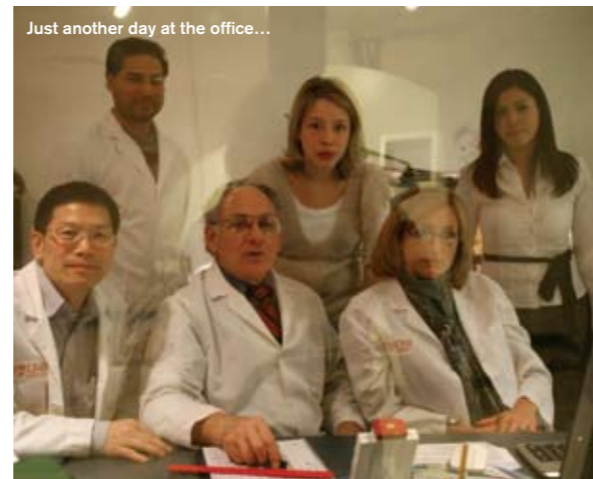
The clunking sound begins again. "Start clitoral stimulation," says Barry, via the intercom. A central part of Mara's brain lights up for 30 seconds, until she's told to rest, then stimulate herself again. This on-off pattern continues for 10 minutes. It's weird knowing Mara is touching herself on the other side of the glass, but the

**ORGASMIC FACT:**  
**WOMEN'S PAIN THRESHOLD DOUBLES AT THE POINT OF ORGASM**

blankets mean I can't see what she's doing. The scientists throw the odd glance Mara's way, but mostly they're watching the monitor showing her brain activity. Barry and his team aren't interested in looking at Mara. They're excited by the effect it's having on her grey matter.

"Next, I'd like you to perform clitoral stimulation to orgasm," Barry tells Mara. "Do you need more lube?" Silence. Then a voice from inside the 3T: "I'm OK."

This is when things get exciting – and not just for Mara. Just before her orgasm (signalled by raising her left hand), two central areas of her brain light up. "I've never seen the anterior cingulate and nucleus accumbens show up so clearly during self-stimulation," says Barry. His team are so glued to the monitor they miss Mara's hand shooting up. "She's orgasmed!" spots a researcher. Barry explains the hoo-ha. "We know from past studies that



Just another day at the office...  
The team monitors differences in Mara's brain activity as she reaches climax

these two brain regions become active during orgasm, but this is the first time we were able to predict orgasm was about to happen by seeing the brain activity first."

Five minutes later, a flushed-looking Mara emerges. "That was incredible!" says Nan. "Before your orgasm, your brain lit up! Barry's never seen that. He saw it coming – ha!" Thrilled to have been of service to science, Mara goes to get changed.

Not all procedures are like this. Some days, participants use a dildo to help them self-stimulate. On others, they're asked to just think about their bits being touched, to test what effect this has on their brain.

**THE POWER OF THE MIND**

It's these 'thinking' experiments that have produced some of the most interesting data, leading Barry to the most intriguing group of participants. "We have proved that some women are able to 'think off' – have an orgasm through thought alone. When they do, their brain activity looks similar to how it does when they touch themselves."

"You can't mean there are ladies who climax hands-free?" I ask. "That's right,"



Nan greets a flushed Mara as she emerges from the scanner, post-orgasm

Barry assures me. "For a long time, scientists thought it was a myth, but thanks to the 3T, we've seen they are experiencing real orgasms, through the power of the mind alone. I thought these women were rare, but in our first study, we saw 10."

Sensing my scepticism, Barry introduces me to Lucy\*, 29, from the Bronx. "I had my first 'thought orgasm' five years ago, chatting with a male friend online," she says. "I'd always known I come easily but it was the first time it had happened without touching myself. I'd put it down to frustration – I hadn't had sex for a year. So I was surprised that after climaxing from clitoral stimulation in the scanner, I came again by just thinking about touching myself."

Barry admits he's stumped. "Are these women tricking their brains into thinking there is sensory input? Or does 'thinking off' bypass the usual systems altogether, >

**ORGASMIC FACT:**  
**AT LEAST FOUR AREAS CAN BE STIMULATED TO PRODUCE ORGASMS: THE CLITORIS, VAGINA, G SPOT AND CERVIX**



**YOUR ORGASMS THE BIG QUESTIONS**

Sex therapist and scientific researcher Nan Wise answers our most common orgasm queries

**I've never reached orgasm – even on my own. What should I do?**  
"Masturbate – practise, practise, practise! Then share what you've learnt with your partner. I tell my clients, 'You have to learn to play your own instrument before you can play in an orchestra.' First, stop making orgasm the 'goal' – explore your body and see what feels good. Buy a vibrator and books that teach you how to masturbate. Then, create a relaxed setting, pamper yourself and devote an evening to finding out what gives your body pleasure. The science suggests that you need to strengthen the stimulation and orgasm pathways. And if you're still having trouble – try consulting a sex therapist."

**Some days I can orgasm, but on other days I can't. Why is that?**  
"We don't know – but it looks like mood, hormones and stress could all play a part because they affect the balance of neurotransmitters (chemical messengers). There are over 50 neurotransmitters and we only know what a handful of them do, so we don't have the whole picture yet. But it seems possible that anything affecting your mental state is going to affect your likelihood of being able to orgasm."

**I can have orgasms through masturbation on my own, but it's harder when my boyfriend is there as I feel self-conscious. What can I do?**  
"Allowing yourself to be vulnerable can feel scary – but

that intimacy is also what makes sexual relationships so exciting. I suggest you take a risk and tell your partner how you feel and see what happens – I think you'll find it may even deepen your relationship. I also suggest that you masturbate together and watch each other – this is good information about what turns each partner on and it can be pretty sexy too. Since the both of you are doing it together, there's also equal opportunity to feel self-conscious and goofy until you and your partner get over it."

**I've been faking orgasms with my new boyfriend – and now he thinks what he's doing is enough to make me climax...**  
"I vote you go with the truth. Explain that when you started faking orgasms, you had good intentions. Try not to judge yourself for having done it – you had your reasons. You could start with, 'There's something a bit embarrassing I want to discuss with you about our sex life, and I think it will be really good for us to talk about, but it's kind of hard for me.' Ask if he's in the right frame of mind to discuss it now. You could tell him you've discovered that many women have trouble reaching orgasm with partners (remember, only a third of women orgasm reliably from intercourse) – then explain that you are one of them. Frame it as a positive step in your learning about your sexuality, rather than something you did to him. Don't worry if your boyfriend gets upset – he'll get over it. And so will you."

getting straight to some kind of 'orgasm centre' in the brain? It's a puzzle."

Whatever the truth, this group of women could hold the key to boosting sexual pleasure for us all. "It suggests we have abilities we're not aware of – and which may be teachable," says Barry. "If we can understand 'thinking off', can we teach these techniques to women who have trouble reaching orgasm? Right now, we're just not sure – but it's possible."

"What these women can do suggests that our minds are more powerful than we imagined," Nan continues. "Most women can get aroused from thought alone, so why not be able to orgasm from it? If you've woken from a sexy dream and wondered, 'Did I just have an orgasm?' maybe you weren't a million miles from having a 'thought' orgasm."

**YOUR ORGASM'S FUTURE**

Knowing once and for all that the key to bigger, better orgasms is in our brains – the sexiest part of our bodies – Barry and his orgasm SWAT team are making real progress. "We know that an orgasm is like

a symphony, with many different parts of the brain and body comprising the orchestra," Barry explains. "We also know that as orgasm approaches, more brain regions become active." The four pairs of nerves that trigger orgasm come from combinations of the clitoris, vulva, vagina, cervix and uterus.

When they're stimulated, signals travel up to the brain, where chemical messengers are released. It's when one of the key messengers, dopamine, is released into the deep front region of the brain that women report feeling sexual pleasure. Other signals then travel down the spinal cord and out through the nerves – cue heavy breathing, skin flushing and a racing heartbeat. At the same time, oxytocin, a chemical that's produced by the brain, travels through the bloodstream and stimulates the uterus to contract. Bingo – there's your orgasm.

Barry says his quest to discover why orgasms produce pleasure, "will reap immense and unexpected benefits to

health and happiness." Amen to that. But to achieve these goals, he needs more cash. It seems that funding for research into pleasure is tricky to come by. Men's biggest sexual complaint – impotence – was solved relatively easily by the accidental discovery of Viagra (originally tested for its blood-pressure-lowering effect). But the major female complaint – lack of desire and arousal – is more expensive to investigate. Why? "Because the answers lie in the brain, not the genitals," says Barry. "Women are simply more complex than men." Oh, yes.

Alongside funding, Barry also needs more participants – and I have to admit, I'm thinking about it. It's worthy research and coming home with a scan of my orgasmic brain would be a cool souvenir. In the end, though, I'm just not brave enough. I take my hat off to the participants – but I'm keeping my knickers on.

**ORGASMIC FACT:** **WOMEN ARE MORE COMPLEX THAN MEN AND THE ANSWERS TO FEMALE AROUSAL LIE IN OUR BRAINS, NOT OUR GENITALS**



Dr Komisaruk says he's stunned by the complexity of the female orgasm

**WHAT'S IT LIKE HAVING SEX FOR SCIENCE?**

**Shanti Owen, 48, a former magazine cover girl, is now a relationship coach from Manhattan. She talks about her time in the scanner...**

"I'm pretty open sexually, so I signed up without thinking about it. It wasn't until that morning procedure that I thought, 'How is this actually going to work?'"

"The lab wasn't what I expected – it was so clinical! Actually, my first thought was, 'It's freezing in here – what if I don't feel warm or sexy?' So I asked for two extra blankets."

"Another worry was not being able to move my head. I move a lot during sex and being strapped down was uncomfortable. I stopped the

procedure once because the equipment was digging into my head and putting me off. I kept my eyes closed. Opening them is claustrophobic because you realise what a tight space you're in.

"Not being into sex toys, I wasn't sure about the dildos – but I liked the G spot stimulation, using an S-shaped tool."

"Because there's nothing sexy about the environment, I had to rely on my imagination to get in the mood. Luckily, I have a zillion scenarios in my head. It was weird hearing Barry's voice in my ear and it was hard to

follow instructions once I was really turned on.

"As for my orgasm, it was surprisingly good. All the stopping and starting helped build it up. Afterwards, I wasn't embarrassed – the doctors were so excited about my 'data' that I never forgot it was all for science." **G**



Former cover girl Shanti Owen donated an orgasm to science



PHOTOGRAPHS (OGEN BROWN, GETTY IMAGES, THAWNS FOR COMING BY MARA ALTMAN (G3:56), HARPERCOLLINS) IS OUT IN APRIL. FOR MORE INFORMATION ON SHANTI, VISIT WWW.THEANTHROPOLOGIST.COM. \*NAME HAS BEEN CHANGED