

litmus paper

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TODAY'S HIGHLIGHTS



Daniel Glaser
Dancing in the Brain
2-3 pm/Town Hall

Peter Collett
The Body Politic
6-7 pm/Town Hall

Harry Witchel
Music and Pleasure
8-9 pm/Town Hall

Lewney tunes into fame

by Helen Williams

Communicating science to the masses is no easy task, as everyone who has worked on this year's Festival can probably vouch for. However, when individuals succeed in educating and enthusing others about science, there is no measure for the rewards their efforts can bring to society.

Fame Lab, branded the Cheltenham Science Festival's answer to *Pop Idol*, was an impressive search to find such individuals. The competition started in November 2004 with 334 scientists, and was whittled down to 12 semi-finalists, who faced a six-strong panel of high-profile judges yesterday. The toughest judges by far were Robert Winston, arguably the Alan Sugar of the science world, and Louisa Bolsch, Channel 4's science editor.

For the final round, six energetic



Fame Lab winner, Dr Mark Lewney.

scientists (who all had a definite air of celebrity about them) took to the stage for just five minutes, each with the task of educating the audience about topics they chose themselves. All those present will now feel fully adept in areas such as the discovery of the prehistoric world, a trip to see the Northern Lights in Lapland, and what can happen in

the world in five minutes. Well, perhaps not quite, but they can definitely say they were electrified by the winner – Dr Mark Lewney – who gave us a lesson in rock while playing an electric guitar.

Congratulations to Lewney who walked away with £2,000, a schedule of future engagements and, most importantly, the chance to feature on Channel 4. Obviously ecstatic, he said: "Thanks to me wife. I've put her through this even though she's seven-and-a-half months up the duff." He then proceeded to spray champagne over the stage.

The runners up were David Booth and Matt Wilkinson, who both radiated enthusiasm for science and hopefully won't disappear into obscurity. All in all, an exhausting afternoon and evening that proved there really is some outstanding potential for popularising science.

Tatiana and her titillating treatise

by Jon Andriessen

Welcome to the weird and utterly wonderful world of Dr Tatiana's *Sex Advice to all Creatures*. Olivia Judson, the pseudonymous Dr Tatiana, took us on a warts-and-all tour of animal sexual anatomy.

For those of you that have seen her Channel 4 programme of the same name – a sort of "Sex and the City" for the insect world – it will come as no surprise that "Tatiana" leaves little to the imagination.

We were treated to male flies that explode at the point of performing coitus, leaving their genitals intact to complete the business without interruptum; spiders who dive lustfully into the mouths of their lovers like the characters of some overblown Greek tragedy; and hermaphroditic two-way orgies (the Greeks again? Or Romans?).

It seems that anything you can imagine, and even more that you can't, goes on ad infinitum in the sex



lives of animals, from the smallest insects, with their complex spiny penises, to sophisticated dolphins that "enjoy sex with anything".

Sadly, the human race pales to nothing compared with the elaborate and ambiguous sexual prowess of chimpanzees. If their activities are anything to go by, it's humans that need a liberation front, not animals.

However, Judson is not certain we can learn a lot about ourselves from an increased understanding of the genetic make-up of these creatures.

As more complex social beings, it would be unwise for us humans to compare, for example, the natural predilection towards rape in certain species with that of unwanted sexual advances in our own: "It doesn't make it OK," she said.

For all her knowledge concerning the love life of beasts, Judson was stumped by a question concerning the ornate architecture of the Sumatran rhino's penis. Luckily, another audience member was on hand to explain the "ins and outs" thanks to an article he'd read some years ago and a series of pictures he'd kept, but left at home.

As a journalist, Judson expected her book to be completed in around six months, although it actually took four years. For this reason she's taking her time to choose her next subject matter. "It will be something I'm really interested in," she said. And with her track record, it's something we'll be very interested in too.

I'll do anything...

by Brenda Read Brown

How far would you go? Ben Saunders will next year venture on an unsupported two-man return trip to the South Pole – the journey that Scott and his party died attempting – which is a lot further than most of us.

But he reckons that a high carbohydrate diet will make it possible, having tried it out on his last polar expedition. He gained weight, which is just about unheard of with a high-fat diet (evidence for Atkins?).

Fellow extremist Sam Kirby will lie face down in a swimming pool, holding her breath for as long as possible, to train for her sport of freediving. Not exciting for spectators, she admits, but exhilarating for her.

And Fran Ashcroft, Professor of Physiology at Oxford, would accept gene therapy, drugs, a brain chip – anything! – if it would increase her intelligence further and help her make new discoveries.

Of course there are limits, but none these heroes would ever accept.

Pan-galactic but gargle-blasted...



by Adam Horovitz

Ever wondered whether the Earth will be demolished by a cosmic construction team to build a galactic bypass? If so, last night's *The Science of Hitchhiker's Guide to the Galaxy* event might not have been the place to try and find out.

"As a science journalist you have to smuggle your science in [to newspapers] with a picture of a pretty girl," opined Michael Hanlon, science editor of the *Daily Mail*. It's a shame to say it, but that tactic might have helped him last night as he jogged and blustered through a brief précis of his book and then took questions from a slightly befuddled audience.

Annoyingly, Hanlon clearly knows where his towel is when it comes to science, but seemed incapable of showing it last night. It's not that he isn't able to communicate – a quick glance through the book he had come to plug gave the lie to this, as did many of the asides that scuttled from his mouth like camera-shy crabs.

Hanlon believes that the universe is weird: "The universe is stranger today than it was when *The Guide* was written," he said. "The closer we've peered into the universe, the weirder everything becomes." Hanlon listed, as part of the weirdness, bubble universes, big bangs that beget big bangs and the fact that our world seems fine-tuned to enable us to exist.

Weirdly, and given that Hanlon believes "the public have grown suspicious of science [and] feel dissociated from it," his talk is unlikely to have allayed any suspicions. Indeed, the book and the talk appeared to be universes apart.

Third eye opened

by Clare Sturges

Ask yourself how you might feel if coffee, cigarettes (if you smoke) or your favourite tipples were banned. Probably quite miffed, but, really, it wouldn't be such a bad thing – the diseases related to tobacco and alcohol abuse cause more deaths in the UK than heroin or cocaine.

Now, consider psychologist and drug self-experimenter Susan Blackmore's position: legalise all recreational drugs. She was joined by neuroscientist Colin Blakemore and author Mike Jay for the Altered States event, and they all agreed.

Blackmore kicked off proceedings with a few juicy stories of her own drug experiences: "I've taken loads in my lifetime," she said, "and they've been really interesting ... an intrinsic part of my life and work."

But it's not all good. Blackmore described visions of orange-green snakes, teeth and rats during a bad "trip". If these horrors aren't your thing, then maybe nitrous oxide, aka laughing gas, will be? Humphrey Davey (its celebrated champion and daring fellow self-experimenter) was delighted to discover that a puff or two can induce the belief the world exists on ideas. Just imagine!

Discussion touched on the high-



Blackmore: "Policing doesn't work."

brow, intellectual questions of how and why drugs affect our consciousness, but debate mainly centred around issues of legalisation – risk of dependency, physical and psychological harm, systems of classification and the cost to society.

In common with many other Festival debates, panelists agreed that scientific research was restrained by those who hold the purse strings. Jay commented: "Most drug research is done to demonstrate the negative effects ... and on animals or people in scary, uncomfortable labs."

When given the final word, the pragmatic Blakemore rounded up with an air of mystery: "Maybe there are things in the universe we just haven't evolved to perceive?"



ROBOT WARS: Meet Kyodai, Japanese for "big brother", a ruthless samurai warrior robot who has been known to hunt down others of his kind with a paintball gun. He does have a passive side though – when he's turned off. EK

Sexing science up

by Emily Koch

Is the science curriculum sexy enough? As a panel of six scientists and teachers prepared to address this question in yesterday's event, Ralph Levinson commented that sexing-up the curriculum could bring "a whole new meaning to hard science".

There was dramatic debate about how to save science in schools "before it's too late", tackling issues such as assessment, coursework and the move towards "edutainment", which it is hoped will interest children in their lessons enough to keep them from taking out their mobile phones and texting the person sitting next to them.

The show was stolen by science teacher Julian Wigley, who entertained us with the sketch of a boy progressing through the school system, who becomes disillusioned by the rigidity of the curriculum.

However, the event was dominated by a heated row about the inclusion of ethics in science lessons: it was argued that, on the one hand, this would unnecessarily politicise the subject and, on the other, that the problems surrounding the application of science are inseparable from the straight facts.

Will changes enhance or destroy science in schools? Many ideas were voiced, but few conclusions reached.

THE DROID

Fame Lab finalist Simon Watt on his attitudes towards TV presenters: "I've watched [Sir David Attenborough] since I was a little tyke ... but I have a personal gripe against Steve Irwin. I only ever tune in to see if he's still alive."

"I was once asked out on a date by a man in a praying mantis costume," said animal sex expert Dr Olivia Judson. "Obviously, he had no idea what happens to the male praying mantis."