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Dance

John Bohannon tells **Marianka Swain** about the weird and wonderful world of Dance Your PhD

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If I asked what inspires you to dance, would you cite romance, passion, celebration, or perhaps the microstructure-property relationships in Ti₂AlCu components produced by selective laser melting? The latter may not seem a natural choice, but it's been brilliantly immortalised in dance form thanks to Australian biomedical engineer Joel Miller, the 2011 winner of the Dance Your PhD contest.

Over the past five years, this decidedly leftfield annual event has grown into an internet phenomenon, with several hundred entries sent in from PhD students all over the world and millions viewing videos of the winning routines.

Its origins were rather more humble, explains founder and organiser John Bohannon, who drew on his own student experience when creating a fun

way for people to explain their subjects. "The hardest part of being a PhD student isn't the actual research – it's having to constantly communicate and defend your work to different audiences, from your advisor and funding providers to your mother."

At a student party, John challenged the somewhat inebriated guests to communicate their studies solely through dance. "I happened to video it and put it online – it went viral and I got hundreds of emails from scientists begging to take part in the next contest. The demand was clearly there, so I set up a proper competition."

The rules are simple: each dance has to be based on a scientist's PhD research and that scientist has to be part of the dance. Everything else is left to the students' discretion, meaning the entries range dramatically from split-screen high-concept affairs to one couple dancing Argentine tango in a deserted sports hall.

"I'm astonished at the diversity of styles – square dancing and Bollywood to salsa and breaking, plus some that are hard to categorise!" comments John. "Some of my personal favourites are those that probably won't win, but still show real passion for the subject – like the bee researcher who dressed as a bee, emerged from a hive in the field where he studies bees and did a very literal interpretation of a bee dance. It may not be high art, but he persuaded me of his joy for what he's doing."

John is also on a mission to outlaw jargon and make scientific research more accessible, and as someone who gladly dropped everything remotely scientific after GCSEs, I was pleasantly surprised by the clarity of the presentations.

Maartje Cathelijne de Jong, biology winner in 2010, combined salsa and interpretative dance to illustrate "The Influence of Previous Experiences on Visual Awareness", while 2010 biology ►

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Diagram Key



■ Maartje Cathelijne de Jong, 2010 biology winner, "The Influence of Previous Experiences on Visual Awareness" ■ Jennifer Whitesell, 2010 biology entrant, "Mechanisms of Lateral Inhibition between Olfactory Bulb

Glomeruli" ■ Maureen McKeague, 2010 overall winner, "Selection of a DNA Aptamer for Homocysteine Using Systematic Evolution of Ligands by Exponential Enrichment" ■ Radoslaw Lach, 2010 biology entrant, "Synthetic Lethality Screen for an Anticancer Treatment" ■ Joel Miller, 2011 overall winner, "The Microstructure-Property Relationships in Ti2448 Components Produced by Selective Laser Melting" ■ Markita Landry, 2009 popular choice winner, "Single Molecule Measurements of Protelomerase TelK-DNA Complexes"

entrant Jennifer Whitesell used Bollywood, ballet, square dancing and a dog cameo to wittily explain "Mechanisms of Lateral Inhibition between Olfactory Bulb Glomeruli" – or, in plain English, a study of how animals differentiate similar smells.

34 Several entries are neatly packaged short films with distinctive points of view, such as 2011 winner Joel's stylised superhero adventure or 2010 winner Maureen

McKeague's jam-packed pop extravaganza, which, set to a pumping "Glee" medley, has the chaotic, joyous energy of a flashmob and yet stealthily communicates the essentials of "Selection of a DNA Aptamer for Homocysteine using Systematic Evolution of Ligands by Exponential Enrichment".

With such innovative and effective material being produced, it's hardly surprising that John has been inundated with messages from the education sector. He's also delighted to have the scientific

seal of approval in the form of invitations to speak and perform at elite conference TEDxBrussels and produce dance projects with European Commission Marie Curie fellows. For the latter, he plans to ask the audience if they can pair the performances with the scientific abstracts – "It's a ploy to keep their attention!"

While John believes the image of the social misfit scientist stuck in a lab is "long gone", the competition is a positive force: "Scientists are often open to creative enterprises, but don't feel

they have permission to devote time to them. This is a great outlet, and the fact that it's sponsored by premier industry journal *Science* gives them explicit authorisation to dance and express themselves."

The contest may be fun, but its prizes have grown into a very prestigious package, with each section winner (physics, chemistry, biology and social sciences) now receiving \$500 and the overall winner \$1,000 plus travel and accommodation to attend TEDxBrussels. The international exposure of winning the contest

and the opportunity to make contacts is a huge boost to a budding scientist's career, notes Joel: "It's a life-altering event."

To ensure the most worthy candidates receive those prizes, John has assembled an expert judging panel comprised of scientists, dancers and choreographers, who – appropriately enough – "use a data sheet I drew up to score the entrants on different axes, marking on creativity and scientific merit. The winners are always among

my favourites, which reassures me that the system works.

"However, I also love the also-rans – they may not be the best dancers, but seeing someone overcome their inhibitions and release this pent-up creative energy is incredible. Clearing those personal hurdles can make as much of an impact as putting on a huge show." ●

Visit www.gonzolabs.org/dance to view past winners or enter this year's contest.