



**“First, You Laugh”**

**Keynote address to the 2009 Council of Science Editors annual meeting  
By *Improbable Research* Founder Marc Abrahams**

ABRAHAMS: Well, *Improbable Research* and the Ig Nobel Prizes are all about this one phrase that's up here. It's all about things that have this quality, things that first make people laugh and then make them think. What they think, that's up to them.

Something I'll mention to you as a group, I don't normally mention, it took about seven years to be able to reduce what I'm doing down to a description this short. And until that time – and there are a few people in this room who were involved – Miriam Bloom, especially here, is on our editorial board – early on. But until we came up with this phrase, we had a problem all the time. When people would hear about what we're doing and ask about it, it took five minutes to explain, and by that time it's not so easy to get them thinking about the content anymore, now they're all wrapped up in words. But it all comes down to things that make people laugh and then make them think.

And at the peak of what we're doing, or the depth – depending on how you want to look at it – are the Ig Nobel Prizes. Since 1991, we've been giving out ten prizes, ten Ig Nobel Prizes every year. And they're for achievements, any kind of achievements, that make people laugh and then make them think. Most of these happen to be about things involved with science.

This photograph was taken last October in Sanders Theater at Harvard. This is moments after the Ig Nobel Prize ceremony. This is an Ig Nobel Prize winner holding his Ig Nobel Prize. I'll tell you in a couple of minutes what he did. This was taken that same night. These three men are part of a team that won an Ig Nobel Prize, and they are holding their Ig Nobel Prize. And this is the Ig Nobel Prize. There is a physical Ig Nobel Prize. It's made of a different design every year. What's common across all the years is it's made from extremely cheap materials. It usually reflects the theme of the ceremony. Every year we choose a different theme.

This year's theme was redundancy. And those of you who are close to the screen can see that this is a block of wood with a little sign on it which says, “This is an Ig Nobel Prize.” And behind that there's mounted another little sign which says, “This plaque certifies the existence of this Ig Nobel Prize.” And right behind that there's another little piece of paper saying, “This plaque verifies the certification of the existence of the Ig Nobel Prize.”

If you're chosen to win an Ig Nobel Prize and you accept, you get a couple of different things. You get the prize and you also get a piece of paper which says you're an Ig Nobel Prize winner. And this piece of paper is signed by several people who have Nobel Prizes, so it's a nice thing to have. And many of the winners, I'm happy to be able to report, having seen this myself, having



visited many of them afterwards, many of them take this, mount it in a nice frame under glass, and then they mount that above their toilet in their home.

It's not easy to win an Ig Nobel Prize. In fact, just based on the numbers alone, it's not easy. We get every year 6,000, 7,000 or more new nominations, and we choose just ten every year. And anything that has a reasonable shot stays in the pool if it's not chosen. So now after 18 years, the pool is enormous. We do have a policy, in most cases, that if you're chosen to win a prize, we get in touch with you and give you the opportunity to quietly decline this honor if you want to. Very few people do turn it down. Let's see, I should mention that every year about 10-20% of the nominations are people who nominate themselves. You can nominate yourselves. I hope some of you will. I'm sure some of you will nominate each other. But of those who nominate themselves, almost none of them ever win. If you're trying to win an Ig Nobel Prize, it's very, very hard.

All right. If you're chosen, if you accept, then you're invited to come, at your own expense, to the Ig Nobel ceremony. It's in this building. This is Sanders Theater on the Harvard campus. Many of you, I think, have been there. It's the oldest and largest meeting place at Harvard. It fits 1200 people. On Ig Nobel night, it's always jammed to the rafters. We televise this live on the Web. Reporters come from around the world, audience comes from around the world to see it.

And the winners come in, usually having just got off an airplane sometimes from the other side of the world, and they're in a different time zone. They come in, they see all these people in the audience, they see paper airplanes flying, and up on the stage they see, waiting to shake their hands and hand them, physically hand them the Ig Nobel Prizes, are a bunch of Nobel Prize winners. And the essence of the ceremony – keep in mind that the winners are a strict secret until the ceremony happens. The magic moments in the ceremony are the ten times when we announce a new Ig Nobel Prize winner. And an Ig Nobel Prize winner walks out to the middle of the stage and a Nobel Prize winner walks out to the middle of the stage, and they both look at each other and neither one can quite believe it.

Because it's an awards ceremony, we had the same problem that I'm sure each of you has suffered through many times at awards ceremony, which is there are lots of people who have to give short speeches, and everybody has a couple more things they want to say. And somehow things just drag and drag and drag. Now, we used to have that problem. We solved it about ten years ago, and we solved it in a pretty simple way.

We got a timekeeping mechanism we call Miss Sweetie Poo. Miss Sweetie Poo is a very cute eight-year-old girl. She sits on one side of the stage during the whole ceremony, and at the start of the evening I introduce her. And I explain that Miss Sweetie Poo, whenever she feels that somebody has talked long enough, she'll let them know. And I ask her to demonstrate. So she walks all the way across the stage up to the person who's at the microphone, and she looks up at that person and she says, please stop, I'm bored. Please stop, I'm bored. Please stop, I'm bored. Please stop, I'm bored. And it works.



This is a photo of Miss Sweetie Poo a couple of years ago. You may notice it's not the same girl you just saw in the other photo. Miss Sweetie Poo is eight years old, and we have been unable to find a way to keep any of our Sweetie Poo's eight years old for much longer than a year. In this picture, Miss Sweetie Poo is helping one of the winners finish his acceptance speech. We tell the winners, prepare a speech, you get to talk longer than anybody else, you get about one minute, about 60 seconds. This winner is Dr. Francis Fesmire.

Dr. Fesmire won the Ig Nobel Medicine Prize a couple of years ago. He came up with the first reliable cure for something doctors had never been able to solve at all reliably. The ailment is known as intractable hiccups. That's the kind of hiccups that go on for hours and days and weeks and months. Nobody had ever been able to stop that until Dr. Fesmire's method. And he published it in a medical journal, and perhaps one of your journals. I've forgotten exactly which journal it was. But he calls his method digital rectal massage.

Here very briefly are the most recent winners, the most recent crop of Ig Nobel Prize winners. The Ig Nobel Physics Prize was awarded to two scientists from southern California. Now, some of these were published in journals published – journals you're involved with in the room. So if it's your journal, feel free to stand up and take a bow. So Dorian Raymer and Doug Smith were honored for proving mathematically that heaps of string or hair or almost anything else will inevitably tangle themselves up in knots. And here is their study, called *Spontaneous Knotting of an Agitated String*. Stand up. (audience claps)

And here is Dorian Raymer at the ceremony, emerging through the sacred curtain to get his Ig Nobel Prize. The man there waiting to shake his hand is William Lipscomb, who has the, I think, 1976 Nobel Prize in Chemistry. Professor Lipscomb is now 90 years old. He's been a part of our ceremony for almost as long as we've been doing it.

This is an illustration from the study. OK, did you have a hand in choosing this illustration? They're claiming they have no hand in this. All right. (audience laughter)

The Ig Nobel Prize in Cognitive Science – first time we've given a prize in that field – was awarded to a team of five scientists from Japan and one from Hungary, all working together, for discovering that slime molds can solve puzzles. And this is their study, called *Maze-Solving by an Amoeboid Organism*. By the way, we have – if you want more details on any of this, we have full citations and links to most of the original papers and to the people's Websites up on our Website, which is [Improbable.com](http://Improbable.com).

Here are three of the team. They traveled from Japan to give a 60-second acceptance speech. That's what you're looking at here. And in the middle of their speech, they suddenly broke into song.

This is a picture from their study. This is before and after. The puzzle was a maze, and you can



see on the left that on this maze they had taken some slime mold and just spread the slime mold across the whole maze. That's the yellow. And then they took some food and they put a little hunk of food at each of the two entrances to the maze. On the right, you can see that – those big yellow triangles. That's the food. And then they left it for several hours. And when they looked at the end of that time, the slime mold was no longer covering the whole maze. It was only along the shortest path from one hunk of food to the other. And as you know, solving this kind of maze mathematically is something that can sometimes be done and sometimes not. Mathematicians always, for most mazes, have a terrible time trying to solve this. Slime molds, on the other hand, apparently have no trouble whatsoever. (audience laughter)

The Ig Nobel Economics Prize this year was awarded to Geoffrey Miller, Joshua Tybur, and Brent Jordan from the University of New Mexico for discovering that professional lap dancers earn higher tips when they are ovulating. I'm guessing that very few people in this room are lap dancers. Is that – ? And here's their paper, called *Ovulatory Cycle Effects on Tip Earnings by Lap Dancers: Economic Evidence for Human Estrus?*

And here are two of the three authors at the ceremony, giving their acceptance speech. You can see projected behind and above them is a graph. That's from their study. And here's a closer look at it. This shows the difference in earnings between lap dancers who are ovulating and those who are not, and you can see it's a very dramatic difference.

The Ig Nobel Nutrition Prize was awarded to Massimiliano Zampini of the University of Trento, Italy, and Charles Spence of Oxford University in England for electronically modifying the sound of a potato chip, to make the person chewing the chip believe it to be crisper and fresher than it really is. Here's their paper, called *The Role of Auditory Cues in Modulating the Perceived Crispness and Staleness of Potato Chips*. And this is Max Zampini, one of the co-authors. This photo was taken about three weeks after the ceremony, at an event we all did at the Genoa Science Festival. And I saw a newspaper report saying that yesterday he was scheduled to be on one of the Italian TV networks, and he was going to repeat this experiment live on Italian TV. We don't know how that came out. Or I don't know, anyway.

This is what they used for the potato chips. Since they wanted things to be as repeatable as possible, they used Pringles, because with Pringles most of the chips are quite similar in shape to every other Pringles that's ever been manufactured.

And this is what the work looked like. That's Max Zampini in a soundproof booth. And as you can probably see or tease out – there's a lot of detail in that photo – he's sitting on a stool and he's chewing once on a single Pringles potato chip. And he's doing this into a microphone. Sound from the microphone goes out of the booth, through some electronics, where it's modified. They add or subtract high frequencies or low frequencies, and the sound is fed back in to some earphones, which you can see there. So he's hearing simultaneously the modified sound of what he's chewing. And then he's got a foot pedal that he's supposed to use to register how crisp and fresh the chip is.



The Ig Nobel Peace Prize, which some consider to be the most prestigious of the Ig Nobel Prizes, was awarded to the Swiss Federal Ethics Committee on Non-Human Biotechnology and to all the citizens of Switzerland for adopting the legal principle that plants have dignity. This is the book, produced by the committee, that attempts to explain to the citizens of Switzerland what this means for them.

This got into the legal system in a roundabout fashion. There were some new laws put in that were mainly intended to increase animal rights, but the wording was so very general, that after it was all in place, people realized this also applies to plants, presumably to slime mold, bacteria, almost anything else. And no one knew what this meant for the human citizens. So the committee was formed, was asked to look into this. They published a book, and now presumably the citizens of Switzerland have more guidance.

We've put together a few little scenes here from the days when dignity and – oh, that's the – the man on the left there is the head of the committee that did this, accepting the prize at the ceremony. There again is the book. There's the man who wrote it. OK, here's a scene from the days when plants and dignity did not always coincide legally. (audience laughter) To the best of my knowledge, what you're looking at right now is no longer legal in Switzerland.

The Ig Nobel Archaeology Prize was awarded to Astolfo Araujo and Jose Marcelino of the University of Sao Paulo, Brazil for measuring how the course of history, or at least the contents of an archaeological dig site, can be scrambled by the actions of a live armadillo. And this is their paper, *The Role of Armadillos in the Movement of Archaeological Materials: An Experimental Approach*. (audience laughter)

The Ig Nobel Biology Prize was awarded to Marie-Christine Cadiergues, Christel Joubert, and Michel Franc, all at the Ecole Nationale Veterinaire in Toulouse, France for discovering that the fleas that live on a dog can jump higher than the fleas that live on a cat. Here's their study, called *A Comparison of Jump Performances of the Dog Flea and the Cat Flea*. And here are two of the three co-authors. This photo also was taken at the Genoa Science Festival a few weeks after the Ig Nobel ceremony. This was in the Ducal Palace, a most magnificent place. This is some data from their study. And you can see here pretty clearly that the maximum jump height attainable by dog fleas is clearly higher than that attainable by cat fleas. But you knew that.

The Ig Nobel Medicine Prize was awarded to Dan Ariely of Duke University, Rebecca Waber of MIT, Baba Shiv of Stanford, and Ziv Carmon of INSEAD in Singapore for demonstrating that high-priced fake medicine is more effective than low-priced fake medicine. Here's their paper, called *Commercial Features of Placebo and Therapeutic Efficacy*. And here's Dan Ariely, the lead author, giving an impassioned acceptance speech at the Ig Nobel ceremony.

The Ig Nobel Literature Prize was awarded this year to Professor David Sims from Cass Business School in London. He won it for his lovingly written study, called *You Bastard: A Narrative*



*Exploration of the Experience of Indignation Within Organizations.* And here's the beginning of that study, which, sure enough, is called *You Bastard: A Narrative Exploration of the Experience of Indignation Within Organizations.* And here is Professor Sims standing tall, about to receive his Ig Nobel Prize. The man on the right there, about to help present it to him, is a past Ig Nobel Prize winner. That's Dan Meyer, who is the president of the International Association of Sword Swallowers. He and Dr. Brian Witcombe from England teamed up, published a study in the *British Medical Journal* a couple years ago that won the Ig Nobel Medicine Prize. And their study was called *Sword Swallowing and its Side Effects.* They had a good acceptance speech.

The Ig Nobel Chemistry Prize was awarded to a team of three doctors who at the time were all working at Harvard Medical School. They won for discovering that Coca-Cola is an effective spermicide. They shared the prize with three doctors from Taiwan, who discovered that, no, it's not. This is the paper by the first group. This was published about 15 or 20 years ago in the *New England Journal of Medicine.* You can see the title is *Effect of Coke on Sperm Motility,* and if you're close enough to see the detail, you can see they measured sperm motility in four varieties of Coke – in Classic Coke, New Coke, caffeine-free Coke, and Diet Coke.

The team in Taiwan read this paper and decided to do their own experiment, and they came out with this study, called *The Spermicidal Potency of Coca-Cola and Pepsi-Cola.* You can see they expanded the range of what they were looking at. And it turned out that, as happens so often, the two groups were actually doing their measurements in different ways. So we gave them both the prize, and this is at the ceremony. This is Dr. Deborah Anderson, who was really the driving force in the original research. She's giving her acceptance speech here. The team from Taiwan couldn't fly over to the ceremony, but one of the doctors sent his daughter – and here she is – to give an acceptance speech on their behalf. And she said that she and her father both want everybody to know that she was conceived the same year her father did the research, and that both she and her father both want the world to know that they have deep gratitude to the Coca-Cola Company.

So immediately after that speech, we brought some Coca-Cola out there, and all of the scientists on stage had a toast to Coca-Cola. The man in the dark suit there in the middle, as some of you may recognize, that's Benoit Mandelbrot, the inventor of the mathematical concept of fractals.

(audience laughter)

Before we gave this prize, I had always believed that when you see somebody going to a Coca-Cola vending machine, that means the person's thirsty.

At the Ig Nobel ceremony, since we have all of these people in one place just for this one moment in history, we take advantage of that. So between the announcements of the ten new prize winners, we do some other things, all of them rapid. Every year, the ceremony includes a Win A Date With A Nobel Laureate contest. Each of the 1200 people who buys a ticket has a chance to win a date with one of the Nobel Laureates. And I'll show you a couple of pictures of



that.

This was two years ago. Person on the left was the audience member who won, and she – you can see her collecting her prize. The prize that year was Bob Laughlin, who has a Nobel Prize in Physics. He told us afterwards that the winner of the date is three years younger than his youngest son. And this was last fall. Here's the audience member on the left collecting her date, who was Professor Lipscomb, who, I remind you, is 90. And you may wonder what happens on these dates, but I'm afraid that we have a sort of don't ask, don't tell policy on that. Since Benoit Mandelbrot was part of the gang last year, we decided it would be a nice thing to have a Win A Date With Benoit Mandelbrot contest. So we did.

Also, every year there's an opera, a mini-opera. We steal music usually from the classical operas and write new words about some topic in science, and then we get professional opera singers and persuade all of these scientists on stage to also help perform the opera. And all of them are wonderful performers one way or another.

This was a few years ago. The theme that year was chicken. And this opera was called *Chicken Versus Egg*. It was sort of a mother/daughter tragedy. This was a few years ago when the theme was diet. This was the *Diet Opera*. It was about Dr. Atkins largely. And at the very end of it, I won't even start to explain what was going on and why, but they were – the song was “The Can-Can” – or the tune was anyway. And here you see some of the Ig Nobel winners dancing with some of the singers. Those two Ig Nobel winners in this picture were part of actually two different teams that did related work and shared a prize. They were honored for discovering that herring probably communicate by farting.

And a quick look at a few previous winners. Keep in mind these are just a very few. There have been about 180 winners so far. This is Dr. Ivan Schwab. He and another doctor shared the prize one year, because they explained why woodpeckers don't get headaches.

This paper, or the author of this paper was given the Ig Nobel Biology Prize, I think, in 2003, and this was the – and is the first scientifically recorded case of homosexual necrophilia in the mallard duck. Here is the author with the victim. His name is Kees Moeliker. He is the curator of the Natural History Museum in Rotterdam. And there's a long story connected to this, but he's become very much a part of our gang. We now have a European bureau – we being my magazine, the *Annals of Improbable Research*. And our European bureau is in the Natural History Museum there in Rotterdam. I'm going to show you a little bit of video in a minute, where you can hear him explain briefly what happened with this duck.

This you're seeing here is from a patent, this picture. In the year 2001, we gave a prize to a man named John Keogh from Australia and to the Australian Patent Office, because in that year, in 2001, the Patent Office granted Mr. Keogh a patent for the wheel. This is the technical drawing from that patent.



And then the last of these that I have to show you, this was the year 2000. We gave the Ig Nobel Psychology Prize to two professors from Cornell, who published this study, called *Unskilled and Unaware Of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments*. Let me read that again. *Unskilled and Unaware Of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments*. (audience laughter)

So that gives you, I hope, a little of the flavor and some idea of the range of things that can win Ig Nobel Prizes. There have been many, many more. Again, if you go to [Improbable.com](http://Improbable.com), you can see lots. I'm here partly because we hear about these things because people tell us about these things. We're always looking, but most of the things that have gotten chosen are things that somebody told us about. So if you know of somebody who deserves an Ig Nobel Prize – and it could be you – just get in touch. Drop me an e-mail, call me up, whatever. Your name does not have to be attached to it. Also, if you think it's a surefire winner, especially if it's something you've done, good luck. But it's just not easy to tell. Don't get discouraged by that either, because you never know.

Now, I've got a couple other things to show you quickly. One is – the first is we've started doing a little TV series that lives entirely on the Web. It's on YouTube and also on *New Scientist* Website and the *Science Friday's* Website and some other places. And we sort of stole the format from Monty Python, if you're familiar with Monty Python, of little bits and pieces that may or may not be connected. And these episodes are just three minutes long. This first episode is the one I'm going to show you. It's three minutes long, and it includes part of the author of the homosexual necrophiliac duck study explaining what happened.

## VIDEO STARTS

(music)

MOELIKER: I don't like birds like this. As you know, I prefer them like this, stuffed. You will see my work had a new wing a couple of years ago. It's made of glass. And that was a real bird-killer. The only thing I had to do was listen to loud bangs against the window, go down, collect the birds, and stuff them.

M: Amidst the glamor of the announcement, certain of its charms may have gone unnoticed. The invention is a nod to ancient methods of capturing animals in a forest and also to the fanciful adaptation of those techniques in early cops and robbers movies. Mr. Hsieh's patent sums it up in a terse 94 words.

M: A net-trapping system for capturing a robber immediately is used in a place of business such as a bank. The device looks like a storing box and is installed above the entrance of the business. When a robbery takes place and the system is activated, an infrared detecting device determines if a robber is in a zone beneath the storing box. A net, a curtain, and a plurality of barriers will drop down immediately and simultaneously. After a lifting motor is activated, the system traps



the robber and suspends him above the floor.

M: They said so, but they were wrong. Once you have completed the instructions given in the puzzler, it is a simple matter to complete the transformation of Robert Hooks' drawing of a flea into a working replica of James Watts' steam engine. Here are the final steps. Step 261: Fold the paper between sections E and F. Step 262: Fold each section A down the middle lengthwise. Step 263: Glue the middle of section K to the tip of one of the section Gs. It does not matter which one. Step 264: Fold the entire apparatus lengthwise, from the center of section K to the center of section L.

MOELIKER: And of an evening, I heard a loud bang against the window. I went down to see what happened. Here is a mallard duck. It's a dead one. It flew into the window. And here is a live one. Then this happened. The live one raped the dead one. I'm an ornithologist, and I knew something was wrong here. I said to myself, this must be homosexual necrophilia. So I went up to my office, took my notebook and my camera, sat down and made notes. I could do this, because this rape took 75 minutes. It took me a few years to decide to publish this. This is my office. That's where the duck hit the window, and that's where I was when I watched it.

M: We'll let this one go.

VIDEO ENDS

ABRAHAMAS: You're all science editors. When this kind of thing comes across your desk, please send me an e-mail, let me know. That bank robber trapping thing that you saw there, that patent, that also earned an Ig Nobel Prize. The inventor is in Taiwan, and he formed a company, and he's hoping to sell this to banks around the world. No customers yet, but he's quite hopeful. And he's made a little television commercial, which I brought with me. Would you like to see it? As far as I know, this has never run on American TV. And it looks like the – originally it was done in Chinese and then they dubbed it themselves. The language here is theirs. This is the last thing I've got to show you.

VIDEO STARTS

M: Everybody be cool, this is a robbery. Everyone down. Don't fucking talk, just throw me the bag. Are we clear? Good, now what (inaudible)

M: Go, go, go. Down. Get on down.

M: Help, help. Let me go, let me go. Help!

VIDEO ENDS



ABRAHAMS: Coming soon to a bank near you, perhaps. Well, I brought a bunch of magazines, copies of the magazine. They're on the table here. I hope you'll take them. And also some pictures of the sword swallower's acceptance speech, which was quite a nice moment. And that's all I've got to say. So if you have any questions, this would be a good time to ask them. Just raise your hand and sing out.

END OF SPEECH