## **Deborah Blum**



Deborah Blum is a Pulitzer Prize—winning science journalist and author of popular science books, *The Poisoner's Handbook*, *Ghost Hunters, Love at Goon Park, Sex on the Brain*, and *The Monkey Wars*. She has also published an e-book titled *Angel Killer* and her most recent work, *The Poisoner's Handbook*, was adapted into a documentary film of the same name. Blum calls herself 'a giant walking book brain' as she works on her next book project exploring the history of food safety.

Until mid-2015 Blum was a Professor of Journalism at the University of Wisconsin–Madison in USA – the same university she had graduated from years ago. 'It felt very strange to go back as a professor where I had been a student. Now I have been a professor there so long that it feels strange to go to another job,' Blum says as she prepares for her new role as the Director of the Knight Science Journalism Program at MIT, for which she has big plans.

Richa Malhotra, freelance writer for *Current Science*, met with Deborah Blum at the World Conference of Science Journalists held in South Korea. Edited transcript of the interview:

You were born to a scientist-father and a writer-mother. How did this shape your decision to be a science writer?

It was an enormous influence on me; I grew up with science in the house. My

father was an entomologist and he used to bring quite a few poisonous creatures home. Once he brought home a box that had a tarantula in it, another time a black widow. I grew up with this fascination of science as a living thing. At the same time, my mother was a writer. She created a little family newspaper; my sisters and I had to report for it. When I look at myself today, I think I am a hybrid product of my father and mother.

What is a typical day in your life like?

It certainly depends on where I am in a writing project. Right now I am trying to finish a book and a typical day for me is to get up early, drink about three cups of coffee really fast and then write. I think of it as having my writing brain on; I can only really write in the morning and so I get up, inhale coffee and write until maybe noon. At about noon I get dressed (out of my pyjamas) and go out, which a lot of times is when I realize we don't have any food in the house. Then I meet with friends or work on other projects. But when I am writing a book, it takes over my whole life. My husband calls it book brain. So, I am like a giant walking book brain.

Tell us more about your current book project.

I love history of science. The book I am writing is also a history of science set in the late 19th and the early 20th centuries in the United States. I am looking at a period in time in which food was completely unregulated and I am following the story of a scientist who becomes crazier and crazier, who is trying to persuade the United States government that you can never have food safety if you don't have some kind of regulation. He works on that for almost 30 years before the first food law is passed and then truthfully he is destroyed by the passage of the law; he is forced out of the government within a few years after that happens.

Food pre-regulation in the United States and at many places was dangerous and terrible. When they had rotting milk they'd pour aldehyde into it to make it taste better and disguise the rot, and sell it to poor families; hundreds of babies

died. A lot of people don't realize how bad it was. So, in part I am telling this story. I like such moral fables – the story of what the world used to be like, how it changed and why. For me it's the story of why regulation matters. There is an anti-regulation movement going on in the States right now and I want to smack it.

Is this something inspired by your previous work, 'The Poisoner's Handbook'?

Yes, that's exactly right. In fact my editor said to me, 'I want you to do something thematically related,' and I said, 'I want to look at how poisonous food was.' This is a lot like *The Poisoner's Handbook* – follow a scientist who tries to fix a problem, also early in history. The *Handbook* was probably more fun because telling murder stories is always fun.

You have five books and an e-book to your credit. Which one is your favourite?

That's a really good question. They are all my favourites. *The Poisoner's Handbook* is the most writerly book that I did. I love the way I wrote it. I love the way it mixes; it has a brilliant structure, I say modestly, in which the structure is both the story of poisons and the story of two crusading scientists trying to build a profession. When I look at it, I think it really shows how much I've grown as a writer. It is one of the more commercially successful books I've done.

One of the least commercially successful books that I have done is my other personal favourite and that's *Love at Goon Park*, which is about a controversial, pioneering, extremely crazy scientist (I like crazy scientists!), Harry Harlow, and the science of love and affection. I love that book because it has a lot of heart, and it examines the meaning of relationships in a way that changed my life and of my science writing friends. That's the book that has the biggest cult following. Both of these books are beloved to me in different ways.

When you write, what audience do you keep in mind?

I don't write for scientists; I want my works to be scientifically accurate, but scientists are usually not my audience. I am interested in people who have persuaded themselves that they don't like science or are afraid of it or find it boring, find it hard, that it's not for them or relevant to their life. In the biggest picture I want the audience that's turned its back on science and I want to see if I can get them to turn around. Can I seduce them into reading about chemistry if I told them a murder mystery kind of story?

Why do you think students turn their back on science? Is there a problem with the education system; the way science is dealt with in classrooms?

The way we educate our students in science is by filtering everyone who is worthy enough to be a scientist. Students are not taking science classes because we don't require them to – that's a terrible way to teach science. We want to train good scientists, but we have failed to recognize that we have thrown away the majority of our citizens who are not going to be scientists. Why shouldn't they be science-literate; why shouldn't we teach them in ways that make science engaging?

When my younger son - he does not want to be a scientist (I know, it's painful) - was in high school, he took a class in forensic science. It was for students who did not want to be scientists. They took a room of the high school and turned it into a crime scene. Every single month they changed the crime; one month the students had to study toxicology, another month DNA analysis, fingerprinting, blood typing and so on. They went through the whole year using science to solve crimes. Now that didn't turn any of them into scientists, but everyone in that class had a lot of fun with science; they saw it as relevant and realized it was part of their daily lives. I think we need to increase such offerings.

If I was the goddess of science education, I would require that all students have to take a science course every single year in high school. People who want to be scientists do that, but I would make sure that we had murder science or kitchen science or science in community or other science offerings for those who don't want to be scientists. So we would get all that fabulous and interesting exposure to science, and we would have a much more science-literate world that makes smarter decisions about every-

thing from climate change to evolution to vaccination, because we would have educated our citizens. (This is my dream world.) Journalists can address some of that; we form a kind of post-secondary education, but we have to change the way we teach science.

How do you split your time between books and columns? Is it hard to move back and forth between long-form and shorter pieces?

I go through periods when I love writing short pieces, like when I am writing my New York Times blog - that's about a thousand words, whereas a book is about a hundred thousand words. The hardest thing for me is when I think: 'Oh, I will work on my book later; I'll do another one of these short pieces - they are a lot of fun for me right now'. Then I have to pry myself back to the book, but the thing is that the book is in a deeply different rhythm. When you are writing a book, it moves so much more slowly and richly that you have to fight yourself back into the rhythm of the story you want to tell. And then you can't write your thousand words because you are used to telling it in ten thousand.

How about work—life balance? You've raised two sons; was it hard to maintain balance?

It's really hard. But as a working journalist with two kids, who really want you and need you, you are always fighting for balance and you almost never feel like you have it. That was how I felt. I felt like I am never getting this balance right. Being a working mom can make you feel like you are not doing any of it well sometimes, because you are so pulled between wanting to be a good mom and wanting to be a good journalist; somewhere in there is wanting to be a good wife, friend, good many other things. So, it's very gratifying to me now that my sons are grown and to realize that they turned out to be kind, decent, responsible young men. But you have to make yourself crazy. I made myself crazy all those years and it worked.

How did the Pulitzer Prize change your career graph?

When you win a Pulitzer Prize, you have a window; everyone is interested in you and would like to work with you. You make a personal decision that you are going to allow the Prize to change your life or not. At the newspaper I worked with in California, I knew people who'd won Pulitzer years ago and then gone back to being regular reporters. I made a choice that I didn't want to do that. I won the Pulitzer, I was offered a book agent and I started writing books. I let the Prize change who I was. I was no longer just a daily journalist, I was a book author. Being a book author allowed me to get the University job. Sometimes I thought 'well be careful what you wish for', because all at once I am doing many more things and that magical balance is harder to find. But yes, the Prize changed a lot of things for me. It has the power to change your life.

What changes can one expect in the Knight Science Journalism Program when you join as its Director this July?

It's going to be so much better (laughs). Journalism has changed and the Knight Science Journalism Program was built as a mid-career fellowship program at a time when almost everyone who did it was a staff journalist looking for a break. Now we live in a world of freelancers, online writers, many more people who can't take nine months off. So, I want to look at a variety of fellowships; we will keep some of the long ones and introduce some shorter ones. We would probably have project fellowships and story fellowships. There are so many freelancers out there that need a little extra support and these would function like small grants.

The current website of the Knight Science Journalism Program is just about the Program. We are going to make it more of a resource for journalists and put more training information up there. We are going to start publishing more. There used to be a media criticism blog called the Tracker; we are going to bring that back as part of a bigger magazine on science writing and journalism. I have countless plans. I hope I am around long enough to get them all underway.

We see you love to write about poisons, but when you write about poisons in everyday products, how do you manage to not scare your readers or yourself with your extensive research?

I only write about things that are bad for you. I have come to a point where I am

quite relaxed about poisonous things. I am picky about the things that I worry about. I do like to write about everyday exposures from cosmetics – nail polish, lipsticks; the first piece I did for my *New York Times* blog ('Poison Pen') was about heavy metals in lipsticks, which I think was a wonderful and an important piece. Usually when I am writing about those things I'll try to write about them in a way that says, in here is something that tells how you are going to protect yourself, not just here's the bad thing.

I will pick my nail polish piece that made a couple of points. One (and this is one of my constant themes) is that they are better regulated in Europe than in the US. If you buy European cosmetics often they have lower levels of some of the toxic compounds. The other point is when you are writing about poisonous things, always give people a solution. There is always something you can do to protect yourself. A lot of the things I write about that are bad for you are lowdose toxicants, which means you are talking about a risk from a chemical in a trace amount. The most important thing to know about low dose is that, for the most part you have to be exposed everyday for it to be a problem. There is a lot of science to show that the chemicals associated with nail polish remover pose a significant health risk occupationally; people who work in nail salons develop serious illnesses. For a person who goes to a salon occasionally or repaints nails once or twice a week, it is not a major issue. You have to make sure you put the common sense perspective in your sto-

We keep hearing that this is a golden age for science journalism. Do you agree?

We have this phenomenal range of ways in which we can tell stories – from podcasts to videos, standard print to digital magazines, narrative story-telling to just telling a story. There are all kinds of ways for us to self-publish – if you can't find a home for a story you want to tell,

you put it out there yourself. It's a remarkable age and a lot of barriers have fallen so that people can move from one platform to another in wonderful ways. It's exciting; we get to experiment with the best ways.

The challenge in the digital age is making a living. A lot of online publishing doesn't pay as well as the old print model. People have struggled more in making a living. Some staff jobs have disappeared, which makes the profession less stable. There are new opportunities and new challenges. I think we are all trying to figure out the direction in which this is going, in what we want to be a sustainable model.

What are your views on publications asking writers to work for exposure?

Can I just say exposure is [nonsense]? Writers should be paid. But all of us do it [work for exposure] – not just young writers, I know some well-known writers who write for a couple of 100 dollars (which is not very much) because they want the exposure. It is dishonest for publications to say, 'we won't pay you because we are going to give you exposure,' when they are making a lot of money and they could pay. I am against it.

Having said that, one of the things in journalism today is that writers have to be strategic and it means that you have to build a plan to raise your profile and visibility. Every smart writer makes a exposure calculation and my advice is to do it when you really think the exposure is meaningful. Other than that, get paid.

Do you think writing for free undermines the profession as a whole? What role do science writers play in society?

Yes, it does. I am very missionary about science writing. I don't know how we are going to make smart decisions about the future of our planet if we don't become more science-literate and if we don't value the evidence provided by science.

Science writers are essential to that understanding. I think they should be paid well; what we do is so important that we are worth ten times what all of us get. The game that many publications play in figuring out ways not to pay writers, especially in the digital age, not just devalues science writers, but all writers.

My oldest son is in the performing arts; he couldn't do that if he didn't work for an internet company. His ability to be an artist is subsidized by another job. I see this with writers of all ilk, all the time – they have a day job. We pretend that writers are not subsidized by their other work. But, in fact, almost every writer I know either has a partner with a day job or they work for a university or they are extremely fortunate and make a living as a fulltime freelance writer.

We have culturally for a long time underpaid writers. Maybe it's more visible in the digital age, but unfortunately it's not that new. We should invest much more in writers, artists, musicians and all the people who bring quality to life, and keep us informed about the world around us. We just need to be reminded of that constantly, so that at some point we invest more in writers.

Is there anything you want to convey to aspiring science writers?

Science writing is a wonderful profession; not that it's not challenging. The best jobs in the world are the ones where someone else pays you to learn and in science writing you are always getting to ask questions about the world. It is never boring; one of the joys of being a science writer is that you can say, 'I am going to do something else now.' It's the most fascinating learning curve in which you get to ask smart people a lot of good questions and in which you learn more about the world everyday. Also, I like science writers in general; they are fun to hang out with.

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