

programmed to be

fat?



DREAMFILM.CA

PRESS RELEASE

November 15, 2011

“PROGRAMMED TO BE FAT?”

**PREMIERES ON CBC TV's *THE NATURE OF THINGS* WITH DAVID SUZUKI
THURSDAY, JANUARY 12, 2012 AT 8 PM (8:30 NT)**

Are we fat because of man-made chemicals?

New science links environmental chemicals to the global obesity epidemic.

(Vancouver/Toronto) Controversial new science is raising suspicion that chemicals in the environment may be programming us to be fat. And it starts before we're even born. That's the subject of a new Dreamfilm documentary called **PROGRAMMED TO BE FAT?**, directed by Bruce Mohun and airing on CBC's *The Nature of Things* with David Suzuki on Thursday January 12, 2012 at 8 pm (8:30 NT).

Obesity in Canada has doubled in less than 30 years. 59 per cent of all Canadians are now either overweight or obese. It's true that we eat too much and don't exercise enough. But a small group of scientists have begun looking beyond the obvious because of a group that can't chew, let alone jog: infant obesity rose more than 70 per cent in just 20 years. You can't blame them for unhealthy lifestyles. The scientists suspect that, starting in the womb, man-made chemicals may be triggering changes to our metabolism that result in life-long weight gain.

PROGRAMMED TO BE FAT? tells the stories of three scientists whose unexpected findings led them to follow the research of a curious doctor in Scotland, baffled by her inability to lose weight. For three years she pored over existing research on environmental chemicals and finally published a key study in an alternative medicine journal. It linked endocrine-disrupting chemicals to the obesity epidemic. The scientists came across the paper while puzzling over their own research results. None of their studies were about fat, but they had two things in common – they were all researching endocrine-disrupting chemicals, and they all ended up with unusually heavy lab animals.

Endocrine disruptors are all around us – in plastic, in cans, in the water we drink, in the food we eat. They're not supposed to enter our bodies, but they do. If they're proven to cause weight gain, the implications for human health are profound.

Now, scientists are going beyond animal research to human population studies, testing the theory that fetal exposure to man-made chemicals is a key reason for our global obesity epidemic.

PROGRAMMED TO BE FAT? is directed by Bruce Mohun, written by Bruce Mohun and Helen Slinger, and produced by Sue Ridout, Helen Slinger and Sara Darling. It is narrated by David Suzuki. The director of photography is John Collins, and the editor is Tim Wanlin. The original music score is by Graeme Coleman. For CBC, the Executive Producer, Science & Natural History Unit is Bob Culbert, and Senior Producer is FM Morrison.

The documentary is produced by Dreamfilm Productions in association with the Canadian Broadcasting Corporation, with the participation of the Canada Media Fund, the Province of British Columbia Film Incentive BC, and the Canadian Film or Video Production Tax Credit Program.

DREAMFILM PRODUCTIONS is a Gemini Award-winning television production company based in Vancouver. Dreamfilm's documentary **THE DOWNSIDE OF HIGH** aired on CBC-TV's The Nature of Things in 2010, and won the Gold World Medal for Best Health & Medicine Documentary at the 2011 New York Festivals. Most recently, Dreamfilm's documentary **GENERATION BOOMERANG** aired on CBC TV's Doc Zone on November 10, 2011. Other Dreamfilm documentaries include **PEACE WARRIOR** (CTV), about Canadian soldier Capt. Trevor Greene, which won the 2009 Gemini Award for Best Biography Documentary, and the feature documentary **X-CARS** (Discovery), which was nominated for a 2011 Gemini Award for Best Science & Technology Documentary. For more information, please visit www.dreamfilm.ca.

For media access to images:

<https://mediacentre.cbc.ca/>

(Click on Photos, then CBC, then Documentaries, then The Nature of Things with David Suzuki)

For further information, screeners, interview requests, etc. please contact:

Jeremy Katz, Publicist

O: (416) 656-6970

M: (416) 997-6970

jeremyk@sympatico.ca

Programmed to Be Fat? is available for purchase for educational/organizational use after the broadcast from www.cbclearning.ca.

LOGLINES

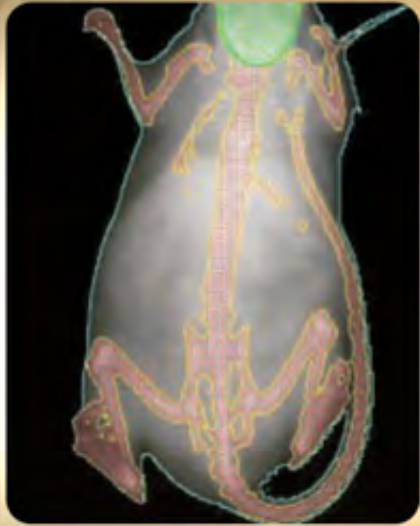
New science links man-made chemicals to the global obesity epidemic.

Man-made chemicals may be programming us to be fat – before we're even born.

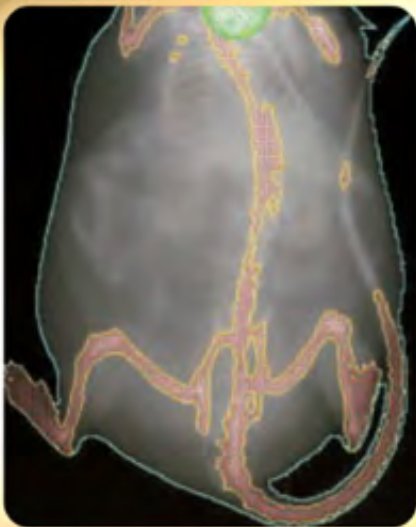
SHORT SYNOPSIS

What if we are being programmed from birth to be fatter than we should be? That question is at the heart of new research into endocrine-disrupting chemicals, chemicals that may be contributing to the obesity epidemic.

Over the past three decades, the developed world has become increasingly overweight, even after years of struggling to eat less and exercise more. Some scientists began to wonder whether there was something else at play in the obesity epidemic, particularly when they noticed that lab animals used in experiments with chemicals were putting on weight. **PROGRAMMED TO BE FAT?** explores controversial new science that suggests exposure to environmental chemicals may be a key factor in the global obesity epidemic.



CONTROL



+ CHEMICAL



SYNOPSIS

What if something is happening to children pre-natally that is programming our species to be heavier than we should be?

Perhaps being fat isn't simply the result of too much food, too little exercise, and genetics. Controversial new science is raising suspicion about chemicals in our environment that may be setting us up for obesity before we're even born.

Obesity in Canada has doubled in less than thirty years. 59 per cent of all Canadians are now either overweight or obese. It's true that we eat too much and don't exercise enough. But a small group of scientists have begun looking beyond the obvious because of a group that can't chew, let alone jog: Infant obesity rose more than 70 per cent in just twenty years. You can't blame them for unhealthy lifestyles. The scientists suspect that, starting in the womb, man-made chemicals may be triggering changes to our metabolism that result in life-long weight gain.



PROGRAMMED TO BE FAT? tells the stories of three scientists whose unexpected findings led them to follow the research of a curious doctor in Scotland, baffled by her inability to lose weight. For three years she pored over existing research on environmental chemicals and finally published a key study in an alternative medicine journal. It linked endocrine-disrupting chemicals to the obesity epidemic. The scientists came across the paper while puzzling over their own research results. None of their studies were about fat, but they had two things in common – they were all researching endocrine-disrupting chemicals, and they all ended up with unusually heavy lab animals.

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GENERATION BOOMERANG EXPERTS



BRUCE BLUMBERG

[University of California at Irvine](#)

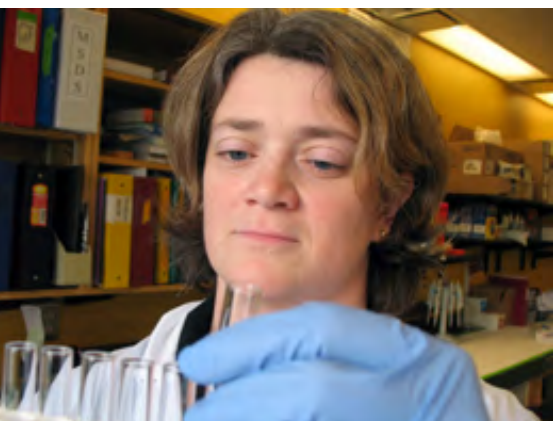
Blumberg is a biologist who studies hormone receptors in animal embryos. He was one of the first scientists to spot a link between endocrine-disrupting chemicals and obesity in lab animals. Blumberg coined the term “obesogens” to describe the family of chemicals that may be programming us to be fatter than we should be.



PAULA BAILLIE-HAMILTON

[Visiting Fellow, Stirling University](#)

Baillie-Hamilton is an Oxford-educated medical doctor and mother of four who lives in the small town of Callendar, Scotland. In 2002 she published an article in The Journal of Alternative and Complementary Medicine about endocrine-disrupting chemicals and the possibility they may be contributing to the worldwide obesity epidemic. She then published two books on the subject. On TV, radio and in print, Baillie-Hamilton continues to warn people of the dangers of synthetic chemicals.



ALISON HOLLOWAY

[McMaster University, Hamilton](#)

Holloway is a Canadian endocrinologist at McMaster University specializing in the fetal origins of adult diseases, including type 2 diabetes and obesity. She is specifically studying the effect of nicotine on rats to see how smoking, as well as the use of nicotine-laced smoking cessation products, may contribute to these two conditions.



FRED VOM SAAL

[University of Missouri](#)

Vom Saal is the leading expert on the effects on fetal development of bisphenol A, a widely-used endocrine disruptor. Vom Saal contends that doses of BPA thousands of times smaller than what industry chemists considered safe are causing reproductive abnormalities – including weight gain – in lab animals, and probably in humans. Vom Saal is a controversial figure in the world of industrial chemistry.



RETHA NEWBOLD

[U.S. National Institute for Environmental Health Studies \(NIEHS\)](#)

Newbold, recently retired, was one of the principal scientists studying the health effects of D.E.S., a hormone replacement drug that was linked to ovarian cancer and finally banned. When Newbold saw her lab animals were becoming fat, she turned to studying the link between the chemical and obesity. Her lab continues to study the effects of artificial estrogens on obesity.



JERRY HEINDEL

[U.S. National Institute for Environmental Health Studies \(NIEHS\)](#)

Heindel is program administrator in the Division of Extramural Research and Training. He's responsible for allocating federal research funds to study the effects environmental chemicals have on humans. Heindel spread the word to research institutions about the new concern over obesogens, and continues supporting and directing the research.



FACT SHEET

- Obesity in Canada has doubled in less than thirty years. 1 in every 4 Canadians is obese.
- Body Mass Index is defined as our weight in kilograms divided by the square of our height in meters. A BMI greater than 25 means you are overweight. A BMI greater than 30 means you are obese.
- 59% of all Canadians are now either overweight or obese. 26% of Canadian children are overweight or obese.
- There are now more overweight people on the planet than there are starving people. But both groups are growing.
- Every second adult in the western world is overweight. One in six is obese.
- The number of overweight infants under 6 months of age increased steadily from 1950 to 2000; between 1980 and 2001, it rose 74%.
- The average weight of animals that live in proximity to humans also increased over roughly the same time period.
- The fattest country in the world is the United States. (Mexico is number two. Canada sits in 8th place.)
- In the United States, 14% of cancers in men and 20% in women are estimated to be caused by being too heavy.
- Being overweight often goes hand-in-hand with diabetes. 20 years ago there were some 30 million people worldwide with diabetes; now there are 250 million.

- Diabetes rates among Canada's First Nations, Inuit and Métis populations are 3 – 5 times higher than the general population. (Among Aboriginal women it's 5.3 times higher than other Canadians, and among Aboriginal men it's 3.3 times higher). Studies are showing a link between diabetes in these communities and persistent organic pollutants such as DDT and PCBs in their traditional foods.
- Endocrine disruptors are synthetic chemicals or natural substances that can alter the glands, hormones and cellular receptors that make up the endocrine system. They may cause developmental or reproductive problems.
- Endocrine-disrupting chemicals can be found in plastics, in the lining of cans, in flame retardants built into many household products, in pesticides, in the coating of store receipts, and in many other products we use on a daily basis.
- Most people have approximately two parts per billion of the endocrine disruptor bisphenol A (BPA) in their body at any given time. (BPA only stays in the body for about six hours.)
- Doses of BPA as small as two parts per billion in pregnant mice have led to overweight litters.
- Industry's preferred replacement chemical for BPA is BPS, which is also an endocrine-disrupting chemical.





RELATED WEBSITES

Obesity in Canada

<http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/oic-oac/index-eng.php>

Endocrine Disruptor Group, U. of Missouri

<http://endocrinedisruptors.missouri.edu/>

Endocrine Disruptors

<http://www.niehs.nih.gov/health/topics/agents/endocrine/index.cfm>

The Case for Obesogens (Grun, Blumberg)

<http://mend.endojournals.org/content/23/8/1127.full>

OECD: Obesity and the Economics of Prevention

http://www.oecd.org/document/31/0,3746,en_2649_37407_45999775_1_1_1_37407,00.html

Canadian Health Measures Survey

<http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=5071&lang=en&db=imdb&adm=8&dis=2>

The Obelix Project

<http://www.theobelixproject.org/>

THE FILMMAKERS



BRUCE MOHUN, Director and Co-writer

Bruce Mohun is a science journalist, and a TV director, writer and host. Over the last twenty years, his programs have aired on CBC, Discovery, Knowledge, TVOntario, Access, and SCN. In 2010 he directed **THE DOWNSIDE OF HIGH** for CBC TV's *The Nature of Things*, which won the Gold World Medal for Best Health & Medicine Documentary at the 2011 New York Festivals. He is a past winner of the Science Council of British Columbia's Eve Savory Award for Science Communication, and the Canadian Federation of Biological Sciences' Gordin Kaplan Award for Science Communication. He was also one of the first North American journalists to produce a multi-part series on global warming, which aired on Knowledge and was screened at the New York Film Festival and the Image and Science Film Festival in Paris.



SUE RIDOUT, Producer

Sue Ridout is a Gemini Award-winning broadcast journalist and the founder of Dreamfilm Productions. After twenty years in Canadian network television, Sue started Dreamfilm in 2001 as a home for thought-provoking documentaries. Since then she has produced and directed documentaries for CBC, CTV, History, Discovery, Knowledge and other broadcasters. She won a Gemini Award for Best Biography Documentary for **PEACE WARRIOR** (2009), a film that profiles Canadian soldier Trevor Greene as he struggles to rebuild his life after a horrific axe attack in Afghanistan. **PEACE WARRIOR** also won Best Biography Documentary at the Yorkton Film Festival, a CINE Golden Eagle Award, second place at the Gabriel Awards, and was a finalist for the Freddie Awards. Other accolades include a Gold World Medal at the New York Festivals

for **THE DOWNSIDE OF HIGH** (2010), broadcast on CBC's The Nature of Things, and a Gemini nomination this year for **X-CARS**, a two-hour documentary special for Discovery. She produced Dreamfilm's most recent documentary, **GENERATION BOOMERANG**, which aired on November 10, 2011 on CBC's Doc Zone.



HELEN SLINGER, Producer and Co-writer

Helen Slinger is a frequent collaborator on Dreamfilm documentaries. Most notably, she was co-writer and story editor on the Gemini Award-winning **PEACE WARRIOR**, and wrote and directed **EMBRACING BOB'S KILLER**. Produced by Sue Ridout and Dreamfilm, this CBC documentary explored the emotional minefield underneath a simple act of forgiveness. Helen produces, writes and directs for her own company, Bountiful Films. Most recent writer-director credits are for **THE GANGSTER NEXT DOOR**, for CBC Doc Zone, which won a Gold Camera Award at the US International Film & Video Festival, and **WHEN THE DEVIL KNOCKS** which earned a 2011 Gemini nomination and won Best Science/Medicine/Technology documentary at the Yorkton Film Festival.



DREAMFILM PRODUCTIONS

Dreamfilm Productions is a Gemini Award-winning television production company in Vancouver that specializes in thought-provoking documentaries. Established in 2001 by broadcast journalist Sue Ridout, Dreamfilm delivers high-impact television with both journalistic integrity and strong production values.

Dreamfilm's impressive roster of documentaries includes **X-CARS** (2011), a two-hour documentary special for the Discovery Channel that was nominated for a 2011 Gemini Award for Best Science & Technology Documentary. It followed a team of car designers from British Columbia who entered an international competition to build a mass-market car that can get more than 100 miles per gallon. **THE DOWNSIDE OF HIGH** (2010), broadcast on CBC's *The Nature of Things*, won the Gold World Medal at the New York Festivals for Best Health & Medicine Documentary. It examined new science connecting marijuana use with psychosis, particularly in teenagers. In 2009, Dreamfilm won the Gemini Award for Best Biography Documentary for **PEACE WARRIOR**, a film that profiles Canadian soldier Trevor Greene as he struggles to rebuild his life after a horrific axe attack in Afghanistan. **PEACE WARRIOR** also won Best Biography Documentary at the Yorkton Film Festival, a CINE Golden Eagle Award, second place at the Gabriel Awards, and was a finalist for the Freddie Awards.

Dreamfilm's documentaries have been aired by broadcasters in the UK, Europe, Scandinavia, Australia, Africa and the Middle East. They are also used extensively by universities and community organizations throughout North America. Dreamfilm's most recent documentary, **GENERATION BOOMERANG**, about adult children who still live at home with their parents, aired on CBC's *Doc Zone* on November 10, 2011.