

The American Council on Science and Health Presents:

# Celebrities Vs. Science 2011

## Nutrition

Gwyneth Paltrow

vs.

Bruce Chassy, Ph.D.

Biotechnology and Nutrition Scientist,  
University of Illinois at Urbana-Champaign

## Scientists Correct the Misstatements of the Stars

### Vaccines

Bill Maher vs. Paul Offit, M.D.

### Chemicals

Nicholas Kristoff vs. Kathryn Kelly, D.Ph.

Mehmet Oz, M.D. and Sanjay Gupta, M.D.  
vs. Rudolph Jaeger, Ph.D.

### Cosmetics

Fran Drescher vs. Larry Wickerham, M.D.

### Nutrition

Gwyneth Paltrow vs. Bruce Chassy, Ph.D.

Elisabeth Hasselbeck vs. Judith Stern, Sc.D., R.D

### Cancer

Suzanne Somers vs. Michael Simon, M.D.

### Supplements

Kevin Costner vs. Bruce Chassy, Ph.D.

We value movie stars and musicians for their entertainment value, not their scientific expertise. But when they weigh in on important issues pertaining to human health and get things wrong, it is important to set the record straight. Scientists affiliated with the American Council on Science and Health (see [acsh.org](http://acsh.org) and [healthfactsandfears.com](http://healthfactsandfears.com)) do just that. Below they respond to one celebrity doozy of a comment at a time.

\* The inspiration for this ACSH publication was *Science for Celebrities*, a publication by the UK organization Sense About Science.

# Vaccines: Bill Maher Versus Dr. Paul Offit

Bill Maher, Comedian, Television Host



**Vs.**

Paul Offit, MD, Chief, Division of Infectious Diseases, Children's Hospital of Philadelphia, author of *Deadly Choices: How The Anti-Vaccine Movement Threatens Us All*



*“Why would you let [the government] ... stick a disease into your arm? I would never get a swine flu vaccine or any vaccine. I don't trust the government, especially with my health.”*

Neither the seasonal flu vaccine nor the swine flu vaccines are equivalent to "sticking a disease into your arm." Both preparations are made using killed virus. Therefore, the vaccine strains cannot possibly reproduce themselves and cause disease. Maher's warning against swine flu vaccine, which he made on October 2nd, 2009, was awful medical advice. During the next several months, swine flu infected about 47 million Americans, causing about 250,000 to be hospitalized and 12,000 to die, including 1,200 children. The number of children who died from influenza in 2009 was ten times greater than that found during a typical flu season.

# Prenatal Environmental Chemical Exposure: Nicholas Kristoff Versus Dr. Kathryn Kelly

Nicholas Kristoff, *New York Times* editorial  
writer



“*We should be much more careful about exposing pregnant women to toxins, and much quicker to regulate chemicals that are now widely used even though they’ve never even been tested for safety...a uterus is not a diving bell that insulates its occupant from the world’s perils... And it’s now high time to take a closer look at unregulated chemicals that envelop us — and may be shaping our progeny for decades to come.*”

**Vs.**

Kathryn Kelly, Dr.P.H., toxicologist



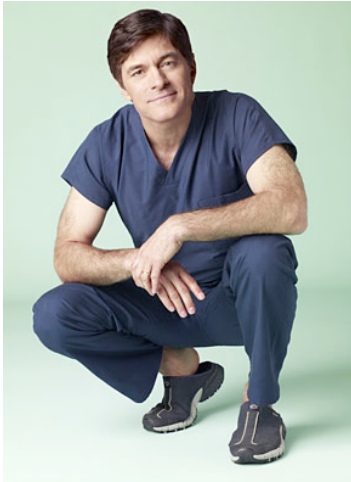
While a laudable goal, unfortunately the only way to significantly reduce a pregnant woman’s exposure to toxins is to starve her. We are exposed to toxins largely through eating them, and as Dr. Bruce Ames informed us over two decades ago, more than 99.9% of the chemicals humans eat are natural, and half of those studied are carcinogens. Tens of thousands of these toxins are present naturally as a part of the plant’s defense system, and always have been. As Dr.

Ames pointed out, natural pesticide carcinogens have been shown to be present in everything from bananas, basil, broccoli, and Brussels sprouts to parsley, parsnips, peaches, and black pepper — meaning almost every plant product in the supermarket recommended for a good diet contains natural carcinogens. We could eliminate every synthetic chemical on the planet and have virtually zero impact on our overall exposure to toxicants. What’s a pregnant woman to do? Eat the healthy foods her doctor recommends, natural carcinogens and all. After all, most of us reading this were born under similar conditions of exposure to mothers who drank orange juice and coffee, munched on apples and carrots, and enjoyed raspberries and pineapples, all of which also contain natural carcinogens. Pregnancy is stressful enough without scaring women unnecessarily.

# Chemicals: Dr. Oz & Dr. Sanjay Gupta Versus Dr. Rudolph Jaeger

Mehmet Oz, M.D., surgeon, TV host

“ Toxic pollution runs throughout our food supply through the earth's most precious resource, the food we eat. Mercury, pesticides, and more are a few of the toxins that wreak havoc on our bodies and now contaminate our food supply. The good news: you can still eat the food you love and reduce your exposure to the deadly forces, but only if you know the secrets to detox your family's food supply. ”



Sanjay Gupta, M.D., CNN medical reporter

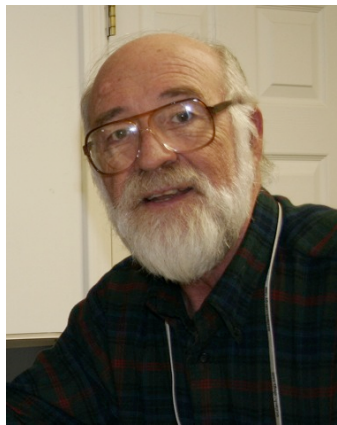


“ For a year now, as CNN investigated toxic chemicals, just about everyone we talked to said, look, they're probably safe, a little bit is not going to hurt you, or, we just don't know. But that isn't good enough... nobody can give parents any assurance that the chemicals turning up in our children's bodies are reasonably safe because the testing has not been done....Take off your shoes by the front door...to reduce tracking potentially harmful chemicals all throughout your home. Keeping these toxic chemicals out of the house is especially important for families with babies and toddlers. They spend a lot of time on the floor. Indoor air is two to five times more polluted than the air outside... So open the windows. Allow for plenty of ventilation... The interplay between toxic substances, the environment and your health, it's something we're going to be forced to deal with for the rest of our lives. Every day, we're going to learn something new, something important. ”

**Vs.**

What a marketing effort. What is he trying to sell? Maybe it is “Listen to me because I know the ‘Secret.’” Manure, is what my grandfather put on the potatoes that **we** ate. Now that's organic! BUT IT WAS OUR OWN MANURE! D(ithe)r Oz puts the the same manure on your plate. Mercury (natural), pesticides (less every year by my count) and ‘more’ (say what?) List them all, D(ithe)r Oz, and we can do battle. We have more food of better quality than ever before. Oz misses the point. We eat too much of it. **That's** the problem.

Rudolph Jaeger, Ph.D., toxicologist



**Vs.**

All substances have a potential to cause harm at some concentration for some time at some stage in one's life. To scare and inflame parents by saying ‘the testing has not been done’ is like yelling fire in a crowded theater. What testing would be adequate to trump such an absurd assertion? None that I know and even then, the ‘Gesundheit Polizei’ will call for stricter measures due to fear, albeit ill placed. Bad things happen to good people who eat right, get enough exercise and practice moderation in most things. To say we need more testing begs the question: What to test and how to interpret the results. As to inside air being more polluted than outside, ask him what toxic gases are found in flatulence (methane, hydrogen sulfide, etc). Even children break wind! They may be the polluters. Next we will get calls for underwear with charcoal filters.

# Cosmetics Chemicals: Fran Drescher Versus F. Larry Wickerham, M.D.

Fran Drescher, actress, comedian



*“ Women are schmearing stuff on their décolleté, wondering why we're all getting breast cancer. Once you wake up and smell the coffee, it's hard to go back to sleep. So I'm sounding the alarm. I couldn't possibly sell something that wasn't good for me. Let's get carcinogens out of our daily lives.”*

**Vs.**

Larry Wickerham, MD, Associate Chairman, National Surgical Adjuvant Breast and Bowel Project

Ms. Drescher is a cancer survivor and her advice to avoid carcinogens is reasonable, but "schmearing" cosmetics of any type on the neckline, entire breast or elsewhere is not known to increase breast cancer risk. Postmenopausal obesity is a well established risk factor for the disease so "schmearing" less cream cheese on bagels would be even better advice.



# Diet: Gwyneth Paltrow Versus Dr. Bruce Chassy

**Gwyneth Paltrow, actress, describing the kale & nut based diet she used to prepare for her role in *Iron Man 2***



*“ This regime got me in the best shape of my life and I continue to return to it when I have a specific event so that I can do ridiculous things like be a 37 year old mother of two and wear shorts...I work[ed] out six days a week. When you're [my age], you either starve yourself, you do serious cardio. There's no free ride. ”*

**Vs.**

**Bruce Chassy, Ph.D., Professor of food microbiology, University of Illinois at Urbana-Champaign**

The *fad* diets consumed by celebrities are a continual source of amusement. They may believe in the diets but the problem is that there are no silver bullets when it comes to nutrition. What counts is the composition of your diet: the right proportions of things like fats, carbohydrates, fiber, proteins and essential micronutrients. It's for sure that some diets are healthier than others, but diets that rely on exaggerated quantities of one or two foods (like nuts and kale) often aren't even balanced diets. At best they do little to help, at worst they don't provide essential nutrients. Why do they work for the stars? Probably because stars work hard at getting into and staying in top physical shape in order to meet their demanding lifestyles. They may think it's the diet but it's really their incredible motivation and willingness to work hard — that's what it takes to be a star.



# Nutrition: Elisabeth Hasselbeck Versus Judith Stern, Sc.D., R.D.

Elisabeth Hasselbeck,  
*The View* co-host, former *Survivor*  
contestant



*“[There are] myriad benefits that anyone can enjoy from a gluten-free diet: from weight loss and increased energy to even the alleviation of the conditions of autism.”*

**Vs.**

Judith Stern, Sc.D., R.D., Professor of Nutrition,  
University of California - Davis

People with celiac disease benefit from a gluten-free diet. Celiac disease is an autoimmune disease where people have antibodies to gluten, and this often damages the small intestinal lining. But the advice that all people benefit from a gluten-free diet is just “baloney!” The late American astronomer and science popularizer Carl Sagan had a Baloney Detection Kit. One suggested tool was: “Wherever possible there must be independent confirmation of the facts.” There are no scientific facts about the benefits of a gluten-free diet for everyone. There is not a growing body of evidence that it can lead to “weight loss and increased energy” or a treatment regimen for autism. Besides it goes against my basic mantras, “Don't believe all the advice that you get from celebrities” and “Don't eat bad tasting foods.”



# Cancer: Suzanne Somers Versus Dr. Michael Simon

Suzanne Somers, actress,  
activist, author



**Vs.**

Michael Simon, M.D., Professor of Oncology  
and Medicine, Barbara Ann Karmanos Cancer  
Institute and Department of Oncology,  
Wayne State University School of Medicine

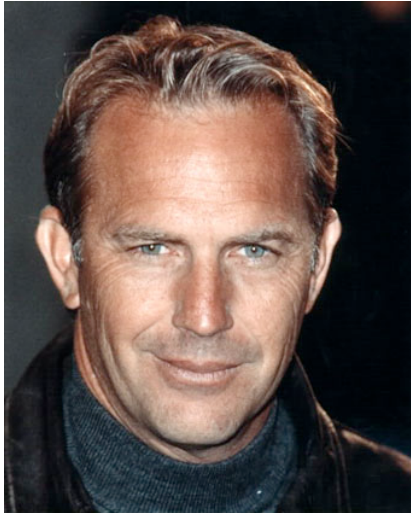


*“Everyone knows the damaging consequences of chemo (what I call poison therapy)...What is crazier than pumping a body full of poison? And then there’s usually six weeks of radiation. But wait...isn’t it radiation that gives us cancer? ”*

Modern cancer therapy saves lives and results in the ever-increasing numbers of world-wide cancer survivors that we see today. As cancer specialists, we support the judicious and careful use of state of the art cancer therapy. Advancements in targeted therapies for cancer include improvements in treatments that kill cancer cells and spare the good cells. The holistic approach to cancer care provides the benefits of cancer experts and medical teams working closely with each patient, so that all aspects of their cancer care are managed (mind, body and spirit) to promote successful treatment results and optimal quality of life.

# Supplements: Kevin Costner Versus Bruce Chassy, Ph.D.

Kevin Costner, actor,  
endorsing herbal/vitamin  
cold remedy Airborne



**Vs.**

“ Look, Airborne is great. I wouldn't go on a movie set without it; it's on my plane and in my house. ”

Bruce Chassy, Ph.D., biotechnology and  
nutrition scientist, University of Illinois  
at Urbana-Champaign

The FTC case against Airborne illustrates how the dietary supplement industry exploits consumer's belief that if a little of a natural product is good for you, then a lot must be better. In this case, there is absolutely no scientific evidence that Airborne would be health-beneficial and a lot of reason to believe it could even be dangerous. But because of its "all natural and green image" — coupled with a powerful force called the placebo effect — the product inspired thousands to believe it worked. It is ironic that consumers want to avoid even infinitesimal amounts of man-made chemicals while they are willing to overdose on anything natural. It would be nice if things were so simple. Some of the most useful chemicals in the world are man-made (for example hundreds of life-saving pharmaceuticals) while some of the most toxic chemicals in the world were designed and produced by good old mother nature (strychnine and botulism toxin are examples).

