

The Science of Beauty – part four

Karen Coleman: “Again, I just think, how safe really are these products? How do we know that the system of self-regulation actually works? Isn't there always the opportunity for one of the producers of cosmetics to take a chance?”

Vanessa Hyde: “That's sort of a two-part question, but the first part – what I didn't mention was that even though you don't need marketing approval to put a product on the market, there is a notification system. In Ireland you notify the Department of Health, ‘This is my product. I'm putting it onto the market,’ and you have to provide what is going onto the label. In accordance with the directive, there is certain guidance as to exactly what must be on your label. So they are notified of the product and what will be on your label. In other words, it's not quite approval but they know exactly what will be on the label.”

Raniero de Stasio: “Including all the ingredients.”

Hyde: “Exactly. So once the product is up on the shelves, then obviously regulators will see and if there is any label claim that contravenes the directive or some ingredients missing...For example, there's a new label regulation for products that are over three years old, that last more than three years, they now have to have a little – you might have seen it on some products, if people are using products that last a long time – it's a little cosmetic bottle and it's what's called a, it's not a use by date, what is it?”

De Stasio: “Period after opening.”

Hyde: “Period after opening date. So in other words people know, ‘OK I opened it on such and such a date,’ and it will tell you exactly how long the product will last. Some people may go, ‘I can just keep using this product ad infinitum.’ And that's a regulation as well.

“But as regards people chancing their arm, that does happen. I know at Shandon Clinic, a while back, we were running a clinical trial on a – I can't mention any names but some of you would have read about it in the media – we actually ran the trial in our clinic in Manchester on a product that was reported to be for eczema in children and was a herbal product devised by an Irishman. It went on to the market and, of course, worked very well. And then the product was analysed and it was full of steroids. So people had been giving their children steroids. So that man went to jail. So, you know, it does happen but not very often and especially in the cosmetics industry.”

Coleman: "And what about deodorants? Because again they're part of the cosmetics industry, they're labelled as such. A lot of concerns again, and there are plenty of claims that deodorants don't cause cancers, but with the increase in breast cancer people are always very concerned about could possibly a deodorant cause breast cancer? What again is the regulation and the testing for a product like that?"

Hyde: "We've done some deodorant testing in the past for safety and tolerability but that, obviously, is post application and short-term use. The same could be said for long-term use of medication for chronic illnesses, you know, medicines. Even with all the stringent four-phase testing that goes into a medicinal product, not until you have the post-marketing surveillance which meant that you had a large number of people using that medication, will you find out that one in, for example, ten million, suffer a very serious adverse event. And the second thing with cosmetics, there's only so much testing you can do, you know, beforehand."

Coleman: "Chris, did you want to come in on that?"

Chris Gummer: "I think the deodorants one is quite interesting because I think this is one where there is something of an urban myth. And the simple rationale from the people who are pushing this, that you get cancer from deodorants, is they're applied under the armpit, it's very close to the breast, therefore there must be some association. When we look into the science behind the studies that were done, they're extremely poor and they won't stand scrutiny, to the point where nobody would pass them for publication. And then, if we look at the chemistry that's going on there as well, we find that the chemistry doesn't stand up. But most importantly, what's not been looked at is the number of women with breast cancer who either don't use deodorants or don't have the ingredient that's been labelled, which is parabens. And also they've not looked at the number of women who use deodorant that don't have breast cancer, which is by far the excess. So when you start to look through all of the science, it just doesn't stand up. There's two other simple bits of information..."

Coleman: "This is the science behind the claims being made?"

Gummer: "No, this is the science behind the people that are making the claims that deodorants cause cancer. They've really not gone into it very well. The ingredient they're targeting, parabens, has been looked at under the microscope many, many times. What you find is that parabens occurs in nature anyway, and as soon as it's in the body it's broken down extremely quickly. Virtually every cell in the body has the ability to deal with parabens."

De Stasio: "It's probably in the skin already as the moment you put it on the skin, it immediately starts breaking down."

Gummer: "It's always talked about, you know, lymph nodes under the arm contributing to cancer. In fact that's a drainage system away from the breast. It's not taking it from the armpit to the breast; the whole thing is draining away in the opposite direction. So the science just doesn't stand up and it's really not been done very well."

De Stasio: "The other funny thing is that parabens as a preservative is not used very widely so they're extremely safe again. And they're not good for use in deodorants because of the way the formulation is put together. They're not the preservatives of choice for deodorants. So that's the other big point where the science does not stand up."

Coleman: "What about these claims about anti-ageing, anti-wrinkling creams? We know that we can spend an absolute fortune, spend hundreds on moisturisers that claim to take twenty years off you and to take every line off your face. I mean, realistically, is there any such thing as a cream that can reduce your wrinkles?"

De Stasio: "Who do you want to answer this?"

Coleman: "You first, because you have plenty of products that claim these things."

De Stasio: "The very short answer is yes. There is a cream that does that. And actually I'm glad that Chris showed, his very first slide on reducing the signs of wrinkles using sophisticated techniques, is the most [unclear] that we have. Actually you can reduce wrinkles. You can't completely reverse the process of ageing yet, we're working on that. You know, in a few years we'll get there. But you can definitely reduce the appearance of wrinkles and you can definitely measure how much you reduce them. The ingredient that I talked about does that by making the skin more elastic, more supple, for example, if you want to talk about my cream.

"But the most important thing really, to have less wrinkles, is keeping the skin extremely moisturised. That's the basic point, keeping the skin in good condition, good health. If you do nothing else, you just use a moisturiser every day, that alone will make you age a lot later. The second most important thing is sunscreens. Exposure to the sun bakes the skin, as simple as that [unclear]. It produces a lot of nasty chemicals, dozens of nasty chemicals, which we should really worry about, the ones produced by UV rays on the skin, the very famous [unclear]. We have ingredients that stop [unclear] but most of all we have ingredients to stop the UV rays from getting to the skin and damaging the cells. Those are the two things really that damage the skin. And smoking, the third one is smoking."

Coleman: "Smoking, yes. Now, I'm sure you have questions that you'd like to put to the panellists. We have several roving mics so..."

Audience member: "You mentioned the use of, I think it was in vitro, a sort of experiment or whatever. I think it was a procedure, was it to produce episkin? And you mentioned using – gosh I'm going to have to look at my own writing here – the umbilical cord blood. Now, I was curious as to where you get that, for various reasons where that would be obtained."

De Stasio: "I mentioned that because it was a very important step, I forgot the date now when it happened, back in the '80s, because in the very first models, skin was actually not growing in the Petri dishes. It was surviving there very happily but it wasn't expanding. And it's very important that you actually, somehow push the growth, otherwise you don't do very much for the poor people that have been burned. The idea is having auto-grafts so that you can take a small piece of their skin from a healthy part of the body, then grow it, and I think there is an anecdote, not sure where I've seen this but from two square centimetres you can grow two square metres worth of skin, which will cover a large part of somebody who had a severe burn. If you can keep them alive until you can grow enough, then you can graft all that skin back on to them, and hopefully they will survive. Those are victims that would be destined to die to be honest. So that was the high science. The umbilical cord was the first thing, umbilical cord blood, was the first thing that actually allowed the skins to take off, sorry – the tissue in vitro in the Petri dishes to take off and actually grow. And that's why I mentioned it."

Coleman: "Umbilical cord blood?"

De Stasio: "Yes."

Coleman: "And how did you get that? Which I think is really the question you want answered."

De Stasio: "From the umbilical cord. It's a by-product of – you need it..."

Coleman: "Who gave you permission?"

De Stasio: "Yes, donors, obviously after birth. You don't take it from pregnant mothers."

Coleman: "With the parents', with parental permission?"

De Stasio: "Absolutely. Absolutely, yes."

Coleman: "OK, thank you. Other questions? Lady down here this side of the floor? Just a mic down over here. Can you see me? OK. Would you mind standing up because it's a little bit difficult to see with the glare?"

Audience member: "I'm wondering; do you get what you pay for with regard to beauty products? Even in relation, say, to the different brands that L'Oréal market, for example Vichy compared to Lancôme. Is more expensive better?"

Coleman: "You're talking to a L'Oréal man here of course now. Do you get what you pay for?"

De Stasio: "You get what you pay for. The example that I quoted is important because it tells you about – I was having this conversation just before because I had the same question, among us, what's the difference between the various brands? Lancôme is the most expensive one, Vichy is probably less expensive, then the L'Oréal Paris brand, Derma Genesis, is the one that is more mass market but still at a high level of performance. And with the pro-xylane molecule, what we've done is we've actually launched this as a motor – I didn't accidentally call it a motor of anti-ageing.

"It's very similar to the car industry, if you think about a very sophisticated car group like Porsche and Volkswagen, they launch their super new ceramic brakes on the Porsche Carrera GT and then they will gradually trickle them down to the Golf and then to the Passat and to the more affordable models. That's exactly what we've done with pro-xylane. It was launched about a year and a half ago on Lancôme and it was exclusive to Lancôme for about a year. And now it's coming to other brands as well, like Vichy. So people that buy Lancôme do get an exclusivity because they would get the forefront of our research. So, yes, you do get more value for your money. And, of course, you get the reassurance of a big brand name and all the research I mentioned that we do."

Coleman: "So you're paying for research. To what extent, if you buy a bottle of Lancôme and it may cost a couple of hundred euro or whatever it is -"

De Stasio: "Much less than that. Let's not exaggerate."

Coleman: "OK. Are you paying for the fancy marketing or the sense that it's an exclusive product? Can you really justify the difference in price from the top end and the bottom end?"

De Stasio: "If I can use the car analogy again, the Porsche Carrera will still bring you from A to B and very rarely you can go at 250 k an hour. In fact, you can't because it's illegal anyway. You can only go on the racetrack with that. So it's for people that want to spoil themselves because they want the Porsche of cosmetics -"

Coleman: "Because they're worth it."

De Stasio: "- and they will buy Lancôme."

Coleman: "Vanessa?"

Hyde: "Well, as you were saying, I would just like to say that the amount of money that goes into research and development has to be made back by the manufacturer before the patent runs out and everybody else is using that same ingredient in their product. As a result, when a new ingredient, an active ingredient, comes onto the market, it's going to be more expensive, especially if it's very effective. And eventually it will trickle down into every product and meanwhile L'Oréal would have found something new and even more advanced. The same would apply to other top-end products, it just depends whether you're worth it or, you know? Cosmetics are a very aspirational industry anyway. Some people have enough self-esteem, if you want to go down that route, to not spend money; other people have the money and feel that they want to spend it. The claims have to be backed up by the research, otherwise the companies would just be opening themselves to lawsuits. So that's whether you feel that you're worth it or you have the money but eventually the ingredients will trickle down into the products."

Coleman: "Yes. OK. Chris?"

Gummer: "Just to give some context of time of developing some of these products – the last product I worked on when I was working for P&G, we were working on a new molecule and it took us four years to actually get that molecule into the products that we wanted and work the way we wanted and make the formulations stay together and keep all the attributes of that molecule. So this is not a quick process and if you can imagine four years of keeping an industry running and the people behind it and the science we're doing, it's an extremely expensive process which has to come back through small bottles of cream or jars of shampoos."