

Swisscom - HomepageTool  
Failed old EFV site now  
November 2016  
(year trial done for homepage tool, want payment??)

sad!

Here is the old info...fyi!

It was all messed up as a site a year ago, anyway, with their 'homepage tool' that they wish was as good as just old google...

sigh...

OX

There were 3 basic pages, the 'home,' 'latest news,' and 'tips and tricks' pages:



**Hair dye and other cosmetic ingredients can be absorbed into your body to potentially damage what has been termed your 'precious genetic heritage,'**

**your DNA!**

(thanks to [Wikimedia and mstroeck](#) for the above image, a structural model of a DNA double helix!)

The [first scientific papers about these findings came out in the '70s](#), but too few of us have any idea about it...

I only realized something might be up, in about 2006, when I heard that the EU was banning some of these substances.

I made this site to help people become more aware of these likely hazards, and guard against them.

The chemical structure of aminophenol (one potentially dangerous ingredient in hair dyes, shown on the 'latest news' page (top right), that you can access from the 'navigation' menu), and is also one of the many things that makes cigarettes carcinogenic

and could stack in easily along the plane of the bases to distort the DNA structure and induce mutations.

Such DNA changes could already be exhibiting their effects in people today!

That genomic mutations are significantly contributing to cancers and congenital illnesses has now been well demonstrated.

The question is, just which of the oh so many dangerous products in our environment are ones we have any control over.

Outside of buying bio and avoiding pesticide/herbicides etc. - we are left with cosmetic ingredients, which are only beginning to be regulated.

If you want to learn more, click on 'latest news' in the menu (above, top right).

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**\*Special News\***

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**The EFV Prize 2015 is awarded to ...**

**... DRUM ROLL ...**

**All the wonderful artists who ever considered contributing to the AGiR! art call - past, present and future!**

**Special mention goes to the encouraging people in the fb group ' the Silver Circle!**

*This 5th EFV Prize will probably also be the last, after 10 years of this biennial effort, aimed at finding the best ways to reach the public to 'end fashion victimisation' in its worst possible sense...*

*If anyone knows a renowned or influential person who might be interested in these issues...*

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**The EFV Prize 2013 was awarded to the Members and Supporters of the (then new) non-profit association, AGiR!**

**The aims of Action for Genomic integrity through Research, to promote research and provide information to the public about risks to genomic integrity and ways to help preserve it, are the certainly great ideas to help End Fashion Victimization!**

**In particular, several members and supporters are honored: FS, PM, CL and SP, for their inestimable help and encouragement, each of whom receive the [commemorative EFV Prize, 2013!](#)**

**( it's a very cute silver DNA charm, that can be used as you like - I put one on my keychain! & it's super, but on a charm bracelet etc it is also nice ...**

**- delivered before the hols thanks to very excellent online service, btw ! )**

**Runners up for this year's EFV prize include all the researchers who responded to my queries, particularly over the past few years!**

**Thank you very much for your input!!**

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**Here's just a little history about the EFV Prize Contest, to help End Fashion Victimization and preserve genomic integrity!**

**The EFV (End Fashion Victimization) Prize is a biennial event. Best ideas to make people aware of the issues about how fashion choices can be dangerous, not just for us, but all living things around, are awarded!**

Before YouTuber's were paid salaries, getting people to 'like' your site was less quantifiable, so we tried to get people to participate in ways like this. Putting on the thinking cap and imagining things differently to help 'spread the word!'

How would **you recommend** to get such issues more out in the open, to raise the consciousness of our society and help improve all our futures? If you think you know 'just the way,' please [contact someone at AGiR!](#)  
The first EFV PRIZE was awarded in 2007 to BC from the German part of Switzerland for an idea to spread the word about DNA damage to hair dressers, particularly those in training.

The second was awarded to CP from Denmark in 2009 to change an earlier focus on genotoxicity to the more positive idea of genomic integrity.

The winner of the EFV PRIZE in 2011 was VA from Lithuania for her nano-tech efforts to help find alternatives to hair dyes! (Runners up for the 2011 prize were: the legislature of Germany, Switzerland and the EU, whose workers are making heroic attempts to regulate hair dyes, even though it is such a big business! a focus by them on allergic sensitization, rather than DNA effects, however, might be altered by information.)

Congratulations again to the winners of the EFV Prize 2015, some of whose works can be seen on the [ART Call page](#) at the AGiR! site, and also to the runners up, helping people have the courage to stop dyeing their hair...

Another mention of the winners of the EFV Prize 2013, all the AGiR! supporters and especially FS, PM, CL and SP is also worthwhile!

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Don't forget: one page EFV summaries are available now in [English](#) and [French](#). Please show them to your friends and talk about these issues!

Furthermore, there is a [blog](#) about all these issues! Contribute your thoughts and comments please!

*The EU is even considering putting warnings on hair dyes: Not for use by children!!! For more info see the old 'latest news' page!*

For the '[édition française](#)' and other language translation ideas, see the [mirror site](#) at Lycos' Tripod.

(Note: Watch out for the mirror site's pop up ads!! I recommend closing any excess windows as they come up - but carefully! Don't click on the wrong button!)

And, **One More Time!!!**

Have a look at the site for the **new non-profit** - it is about more than just hair dyes!  
It is about anything, especially the things we have some choice about, which can damage DNA.

Join [AGiR!](#) Action for Genomic integrity through Research!

Providing information and Promoting Research!!

\*\* Learn how to protect and preserve genomic integrity ! \*\*

**Use of personal care products containing *ingredients of concern* is both a public health and an environmental issue.**

**This site, to end fashion vicimization (EFV), was primarily started to inform people about data regarding and risks from a variety of hair dye ingredients found to be mutagenic four decades ago.**

**This objective broadened to include all the things we choose to do that impact our genomic integrity, a new big picture concept including all the molecular genetic details in the cell. After an idea for forming a public interest group built momentum, a Swiss association was founded, [AGiR!!](#)**

**This EFV site made a challenge for people to reduce their exposure to genotoxic hair dye ingredients (started in in October 2013) by taking the [natural hair color challenge!](#)**

**Come on, it may well be very worth it, and it will be fun!!!**

Additionally, the **recomended method is a gradual** way to recover your natural color, without drastic changes or any strong root-line effects. You may be amazed to love your own hair color, which indeed is most likely to complement your skin tone and coloration!

**Come on! Dive on in and take the  
Natural Hair Color Challenge!!**

This site is still part of the domain:  
**[www.genomicintegrity.org](http://www.genomicintegrity.org)**

**!! [.org](#) !!**

'old latest news' info

After sending around a couple big email messages about the potential problems of hair dye ingredients and other cosmetics, I thought I should make a web site with similar information.

There was an awful lot... beginning from about September 2006 until the present. Most will now be archived in the 'mirror site' when you want to delve further (see below).

Take your time and think about  
it!  
structure of aminophenol)

(chemical

\*\*\*\*

The latest news (15 June 2014) is that it is no news that calling this a 'latest news' page is really a misnomer. Therefore, it will no longer be maintained, unless demand for it is expressed, but will be kept as an archive for those interested. Enjoy, and let me know if you have questions or comments!

The page will be wrapped up with some news, nonetheless. ;)

Firstly, there *\*are\** some people out there trying to take the 'natural hair color challenge,' but at least one has already given up in the face of family pressure. Others cite job considerations and

the need to appear younger and vibrant as reasons to not even try. Of course, the positive benefits of stopping such habits, like covering gray or following the fashions (especially that most recent 'bi-color' hair trend, the 'ombre' look!), are not instantly evident. However, if [recent publications about research on hairdye/carcinogens](#) make more impact, perhaps people will realize the long term benefits for us and society. Some data indicate that ageing more quickly may occur from exposure to some of the ingredients (aromatic carcinogens in particular, but from other DNA-damaging compounds as well)! Perhaps foregoing appearances to prevent this potential effect might be considered the 'win:win perspective' that could induce more to take the plunge and take the challenge... (also for breaking other habits of risk for genomic integrity...)

Further to this topic, [AGiR! has made a one page summary](#) that may soon be found posted, particularly where people gather to smoke (& in the correct language - send requests for your favorite! People from 21 different countries have already visited the main page of the AGiR! site!!)

Older news (23 Jan, 2014) was that [www.genomicintegrity.org](http://www.genomicintegrity.org) now goes directly to the AGiR site, which already has received visits from 18 different countries! Even a Japanese translation is being worked upon!

News from not so long before that (6 Jan, 2014) was that the domain [genomicintegrity.org](http://genomicintegrity.org) would soon (hopefully!) point to the AGiR entry, rather than this original site. This site will continue to focus primarily on the hair dye ingredient issue, so it seems more appropriate for the site devoted to providing information and promoting research into all threats to genomic integrity would be the first thing you encounter when you type in [genomicintegrity.org](http://genomicintegrity.org). Perhaps the simpler website name will also help in terms of reaching a broader audience!

Other news (19 Dec, 2013) was that there are already 14 flags on the AGiR site and lots of things to do before the new year! Have a great holiday season and keep spreading the word about genomic integrity!!

Other older news (29 Nov, 2013) was some

### **Special News\***

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**The EFV Prize 2013 was awarded to ...**

**... DRUM ROLL ...**

### **The Members and Supporters of the new non-profit association, AGiR!**

The aims of Action for Genomic integrity through Research, to promote research and provide information to the public about risks to genomic integrity and ways to help preserve it, are the certainly great ideas to help End Fashion Victimization!

**In particular, several members and supporters are honored: FS, PM, CL and SP, for their inestimable help and encouragement.**

They will each receive the commemorative EFV Prize, 2013!

Runners up for this year's EFV prize include all the researchers who responded to my queries, particularly over the past few years!

**Thank you very much** for your input!!

Other news (17 Sept, 2013) was that AGiR, Action for Genomic integrity through Research, is officially a non-profit association (under Swiss law)!! The first step has been taken, and now we need to see where this path leads! So exciting!

Still looking forward to more ideas for [working groups](#) from your input!

Remember the EFV Prize, however, as you are considering action that could provide information and promote research on risks to genomic integrity!! The final deadline for your EFV Prize idea submission is only about two months from now, 10 november!! How can we get people aware of

genomic integrity and how to protect it?  
Send your ideas in for timely consideration, please!

Other news (30 August, 2013) was that AGiR's [key policy paper](#) was already available. Join this new association and help it provide information and pursue further research on environmental impacts on genomic integrity!

Another thing to note is that the wikipedia entry on how benzene can be genotoxic is much expanded since a year ago! Maybe many are thinking about these issues??

More previous news (August 2013) was that 'next generation sequencing' (see Clark et al 2011 or Shadt et al 2013) might really provide a reliable measure of genomic integrity insults. Who knows, as costs go down, maybe the double blind human study will be feasible?

Unfortunately for the butterfly hair idea (as a structure/color alternative to hair dye), a 3D printing option seems entirely infeasible, with risks from radiation and chemicals (not to mention temperature requirements) not found with the (patented in Japan) idea of nano-imprinting ... Thanks to MM for her insights!

One can perhaps hope the KAO corp will somehow obtain better nano-imprint results and develop a nanocrimper for colors! (but the scale is difficult, to build up butterfly scale structures by basically hot squashing!! and this company has competing interests in the form of the Wella brand and probably others!)

How the butterflies' wing epidermal cells form these scales during pupal development may be also worth investigating in more detail!

Additionally (and this is still BIG NEWS !!), [a public service international non-profit association, AGiR \(Action for Genomic integrity through Research\)](#) is in the works, with a kick-off meeting of its Assembly General scheduled for 15 September! It aims to provide information and pursue targeted research on genomic integrity! Activism, in terms of promoting both law enforcement and a reduction of avoidable contaminants in primary hair dye ingredients, is also envisaged! Check the website as of 31 August to find links to its key position papers; and, if you would like to join, please contact me, as usual at [aronoff \(at\) bluewin . ch](mailto:aronoff@bluewin.ch)

cheerio!

RA

Old news (February, 2013) was that there are labs which have bacterial strains that can grow on aminophenol as a carbon source! Bioremediation may thus also help preserve genomic integrity!!

Older news (October 2012) was that a search for the best biomarker strategy to attempt a controlled study on whether hair dyes really induce mutations in humans was somewhat stalled... Even labs that once used urinary biomarkers now rely on other assays... But blood samples and cells are much more complicated to deal with! Any ideas would be welcome!

Thanks to the chemists who responded to my queries and to Mimi Yu, the very kind epidemiologist who put me in touch with the first one (and published the 2002 paper about hair dyes and bladder cancer risk!). But more info is needed!!

Older news (January, 2012) was that this website is still extremely neglected, but the EFV Prize 2011 was indeed announced last November via the first main page of the site and the blog! Vaida Auzelyte, a nanotech researcher from the EPFL in Switzerland, was chosen for her work on a nano-structural alternative to hair dyeing, known as 'butterfly hair' and possibly still something that will see the light of day! Congratulations and Thank you again, Vaida!

Past news (February, 2011) was that the old [blog](#) (in Tripod - watch out for the ads!) for this site took over from this 'latest news' page over the last year, since this page has always been basically a sort of blog. Please add your comments and ideas. Another thing to do, if you want to help

preserve genomic integrity, is to talk to your friends about all this and realize there are lots of fun things you can do with your hair, without risking mutagenesis of your DNA! Additionally, you can print out the 'one page summaries' in English or French from the bottom of the first page of this site to show your friends and talk about these issues. Thanks!

The old news (January, 2010) was that there had been some regulation by the EU, however it mainly was in terms of modifying concentrations and changing labeling. Indeed, even toluene and aminophenol derivatives are allowed, and the focus has remained primarily on allergic reactions. Furthermore, there are still 31 ingredients that will not be decided upon until a new postponed deadline, 31 December 2010! It seems that the EU schedule for their big cosmetics directive goes beyond 2015, so if we want to protect genomic integrity at all in this new decade, more education and new ideas will be necessary. In fact, to actually ban certain ingredients seems likely to require not only clearly demonstrated human risk, but directed animal testing, about which the logic is not at all clear...

I have put copies of some of this latest EU info into the mirror site. (See [newdeadline](#) and [tolueneandppd 'amendments'](#))

Other news was that the domain name [genomicintegrity.org](#) was registered and applied to this old 'fv' site. I'd love to hear further ideas for what to do with this (and where - server space, anyone?)!

More old news (December, 2009) was that the EFV Prize 2009 winner was chosen!

The winner, with his idea to drop so much worry about genotoxicity for the more positive idea of 'preservation of genomic integrity,' was

...

Drum roll...

CP (aka 'the Professor') from Denmark!

He pointed out:

Genetic diversity is still key in the context of genomic integrity. What is important for preservation of genomic integrity is avoiding genetic contributions to disease and disability in oneself and one's children.

Protection of genomic integrity does not support the idea that there is only one good gene sequence for a particular activity... The healthy human genome as a patchwork shaped by mutation and recombination is probably correct. As more information about human genetics and disease accumulates, this could become more clear.

The Genomic Integrity concept was already apparently close to a tipping point, I should note, at that time with many pathways maintaining this implicated in cancer and other diseases and even a prospective BioMed Central open access journal of the same title!

Congratulations, CP, and thank you very much!

Honorable mention went to:

PB from Wales, for his encouragement about about a new hair color idea I had... to make structural colors, aka 'butterfly hair' - through use of a nano-crimper device. (Unfortunately, although maybe something could really come of it, a prior Japanese patent application made by the KAO corporation meant licensing agreements would be needed for further development...)

Thank you all again for your input!

Previous news (Feb, 2009) was that I had a productive [correspondence](#) with a member of the EU Cosmetics Sector, Unit F3 of the European Commission! He pointed me to the data (some quite shocking and others contradictory - the members of the committee really have a tough job, and I applaud their efforts!) evaluated in their attempt to make a list of hair dye ingredients that are safe for human use. He also told me that they are considering obligatory package warnings, like for cigarettes! One possibility is: 'these products are not intended for children!' Other good news is that the [power-that-be](#) are becoming more aware that genotoxicity can really lead to debilitating (and costly) disease, and thus might be worth trying to prevent.

Older news (Nov, 2008) was that I started a ['blog'](#) via the mirror site. I thought this would be interesting and maybe interactive. The aim was to have another way also to educate people to the idea that DNA and genomic sequences globally are also something on our planet needing protection, in addition to our personal cellular DNA quotients. All these dyes and cosmetics we use are going only one place - out into the environment. There has been another round of papers in scientific journals about somatic mutations and disease, yet no one (yet) discusses the reason(s) so many de novo mutations are found. Comparisons and controls need to be integrated certainly, but prevention is known to be so much more effective than many therapies, it is astonishing how little people want to look into the direct issue of DNA mutagens out there. Of course cigarettes are only now being more generally outlawed...

More news (October, 2008) was that I have been astonished at the data coming out recently about mutations (loads of them, including large duplications, sometimes called CNVs, for 'copy number variations,' and also small deletions, also known as 'microdeletions') in not only cancers, but schizophrenia. After considering these new data, I wrote a letter to the editor (politely refused for publication, sad to say), pointing out how a bit of prevention might be better than just searching for cures, and also to the World Health Organization about the idea that we are contributing to this problem ourselves, via fashion choices. After talking with some very nice people about these issues today, I realized this site has not been updated for some time, so I will put up the note I sent to the World Health Organization

...

Here is the note sent to the WHO, which I sent from my lab address:

Date: Mon, 29 Sep 2008 11:10:05 +0200

> To: cancercontrol@who.int

> Subject: Mutagenesis and cancer/disease prevention

>

>

> To Whom it May Concern,

>

> I am writing because I think general awareness about the issue of  
> mutagenesis and disease is far too low, and a focus on cures is unlikely to  
> help as much as prevention might. The World Health Organization is at the  
> forefront in global health issues, so I thought I should bring some current  
> concerns to your attention.

> A recent set of articles has shown multiple mutations in cancer and in  
> schizophrenia[1-5], but a Nature editorial[6] failed to point out the key  
> unifying theme, genetic mutation and disease, and rather hoped for targeting  
> central 'pathways' in therapeutic interventions.

> It would be very interesting to investigate how and why so many genetic  
> changes were found overall in the various studies, and to investigate how  
> many of the changes can be detected in 'normal' tissues or unaffected family  
> members. However, I think the key idea to point out, in particular for the  
> World Health Organization, is that active mutagenesis of our DNA is  
> resulting in disease.

> While so many things we cannot control ourselves, like radiation and  
> dioxins in the environment, are known to be potent mutagens and carcinogens,  
> what is not (yet) generally realized is that even common cosmetic  
> ingredients, in particular hair dyes, contain similarly genotoxic  
> substances, notably arylamine derivatives. These are one of the things that  
> make cigarettes carcinogenic, as you are certainly well aware, but even in  
> hair dye formulations, these have been implicated in an elevated risk for  
> bladder cancer, which is furthermore dependent upon the individual's  
> N-acetyltransferase allele[7]. Many hair dye ingredients were shown already  
> in the '70s by the noted microbiologist Bruce Ames (of the Ames test) to be

> mutagenic[8]. Common use of such products (with more than 50 million people  
> in the world dyeing their hair regularly) means our environment is more  
> genotoxic than ever.

> In the meantime, the EU has begun to ban some of the ingredients[9],  
> while also funding research for safer dye formulations and  
> bioremediation[10]. Few are aware of this, however; and many really don't  
> want to know. Furthermore, the EU is still a bit confused about whether  
> genotoxicity or allergic reactions are more important. I think the current  
> data now shows the former to be paramount. Whether our genetic inheritance  
> has been altered by genotoxic insults at the same time our atmosphere was  
> altered with excessive carbon emissions is something that should really be  
> considered. Rather than an emphasis on pathway-focused therapies, perhaps  
> an 'ounce of prevention' is in order. Because prevention of disease is one  
> of the aims of your arm of the WHO, again, I thought I should send this  
> information on to you for your further consideration. I also have made a  
> website about this issue, in particular the hair dye dilemma  
> ( <http://homepage.bluewin.ch/raronoff/> ), as a public health service, and  
> hope you will have a look and spread the word.

>  
> Thank you for your kind attention.

>  
> Best,  
> Rachel

>  
>  
> 1. Parsons, D. W. et al. Science doi:10.1126/science.1164382 (2008).  
> 2. Jones, S. et al. Science doi:10.1126/science.1164368 (2008).  
> 3. The Cancer Genome Atlas Research Network Nature doi:10.1038/nature07385  
> (2008).  
> 4. Stefansson, H. et al. Nature 455, 232236 (2008).  
> 5. The International Schizophrenia Consortium Nature 455, 237241 (2008).  
> 6. Nature 455, 138 (11 Sept.2008) doi:10.1038/455138a  
> <http://www.nature.com/nature/journal/v455/n7210/full/455138a.html>  
> 7. Gago-Dominguez, M. et al. Carcinogenesis, Vol. 24, No. 3, 483-489 (2003)  
> 8. Ames et al. Proc Natl Acad Sci U S A. 1975 June; 72(6): 24232427  
> 9. [http://ec.europa.eu/enterprise/cosmetics/doc/2007\\_67/dir\\_2007\\_67\\_en.pdf](http://ec.europa.eu/enterprise/cosmetics/doc/2007_67/dir_2007_67_en.pdf)  
> 10. The SOPHIED initiative, an EU FP6 project focused on dye stuffs (not  
> particularly dyes for cosmetic purposes): <http://www.sophied.eu/>  
>

As always, I would be very grateful to hear what you think, so please write me or go to the blog and add your comments!

Other news (June, 2008) was that I decided to make this page more of a real 'latest news' page, so all the information is not so overwhelming. Archiving [the gigantic missive](#) for people to peruse at their leisure seemed a better strategy. So, this became a more reasonably sized webpage... though I did go back about 9 months from this date, with the first EFV (End Fashion Victimization) prize winning announcement. Please let me know if you like this better, and as always watch out for the pop-up ads from lycos! Such a disappointment that those were not actually improved.

Other news (May, 2008) was that, although 22 ingredients were banned from hair dyes in 2006 by the EU, now only 14 are definitively banned. Why some were still allowed is obvious, they make the hair dyes work. Which are the most important for effective dyeing? The ones performing the chemistry to help the coloring process also may be absorbed even to the point of affecting the DNA within cells. No wonder the hair dye execs (as the cigarette CEOs did before them) would stall the process of reason ... Do the math: 50 million people and how much is your favorite colour?

Of course, some of the ingredients which are still allowed are the bad ones (i.e. potent mutagens/carcinogens). Even naphthalene derivatives are included. From my very first note (now archived) I pointed out this specific hazard. If during its manufacture someone is exposed, almost 100% of such workers get bladder cancer!

When web sites for 'non-toxic' hair dye formulations claim only 'trace amounts' of the aminophenols, naphthalenediol, etc. - it's silly. These things work in miniscule amounts, like hormones, etc... Too much (for actual toxicity of cells) can preclude the ability to make any significant effect in the case of carcinogens. An LD50 doesn't mean so much when talking about effects of DNA mutations.

I did contact the public health services here, and now am wondering how best to contact the school director, as the school nurse had recommended. Thanks for your help!

Note: she and others have also improved the one page summaries, in particular the French translation! Thanks to one and all!

Here's a lighter-hearted [look](#) at everything! just because...

Other news (April, 2008) was that I made a one page summary for posting around to inform people of this issue, both in [English](#) and in [French](#). My plan was to finally go over with this in hand to the local hairdressers and talk to the apprentices and to the local school and talk with the school nurse. Ultimately, posting the flyer (or something like it) may help educate hair dye users and especially kids about this issue. (It was up in my volleyball training gym for several years, I should mention, from myself in 2013)

I will also added the link to the [Spanish](#) Unmasked flyer from the skindeep database folk... Thanks again to them!

Other news (December, 2007) was that the [EU's latest directive](#) seemed to definitively ban 14 hair dye ingredients, but at least 42 more will be allowed until December 2009, with certain restrictions. I was also pointed to a [big EU document](#) from last April by someone who signed the guest book (Thanks!) with loads of legalese and details about various ingredients (for many cosmetics too) for those of you who are interested in the nitty gritty or the legal end of this story. Again no big media involvement or change in the shop shelves is noticeable. However, lead in lipsticks might be something getting attention lately, so that should also help raise awareness in general, hopefully.

Basically, however, the 'take home' seems to be that one has to be responsible for oneself and as informed as possible... Good luck to one and all!

Great news (October, 2007) was that the winner of the EFV prize was chosen!  
I was very happy to announce the winner of the EFV Prize (2007)!

(drum roll)

B.C. from the German part of Switzerland.

She wrote:

>  
> Now to the hair dyes. I would try to spread the word through the hair  
> trade channel, meaning the hairdressers. They themselves might not be  
> interested in not colouring customers hair or tell them about the  
> risks since they earn good money with it. However every student  
> hairdresser in Switzerland does an apprenticeship and goes to school.  
> The schools can't really teach their students something that is bad for  
> the user or at least they need to make them aware of the risk. If you  
> can get the teachers and than these young hairdressers believing in the  
> scientific evidence you will be able to spread the word. However (it  
> is) far

- > from sure you will be able to convince them!
- >
- > Look at smoking and the evidence there and still people smoke and start
- > smoking because everyone thinks it won't happen to them.
- >

Thank you again, B. C., and congratulations!

Honorable mention goes to I.D. for her idea to follow up on the Nat allele (acetylation phenotype) link to hair dye use risk. Even for non-Hodkin lymphoma risk (low, except for those who used pre-1980 formulations, esp in comparison to the more recent bladder cancer findings) apparently this seems to still be holding up in epidemiological studies. See Morton et al. in the journal *Carcinogenesis* (2007) 28(8):1759-1764.

Thank you to everyone who gave me feedback and simply thought about this issue! Also, thank you to the people involved in the Skin Deep database, and for their Spanish translation of their Unmasked brochure! Hopefully, more translations will be made soon!

Thank you also to the people who signed the guest book (no longer available via the mirror site entry - instead, please use the blog or AGiR's contact page for any comments or concerns!)

Maybe something about this is getting around a bit, in spite of all the other craziness in our world today.

I hope to hear from more people out there and will always be interested in more ideas to get this issue out, even if this year's prize has been awarded!

\*\* from here the original fv site had the originally emailed notes... archived at <http://raronoff.tripod.com/bigmissive>

Finally:

I also want to point to the link about [biology basics](#) to help understand why genotoxicity could be of grave concern... (See especially slides 5 to ~25)

Thank you and take care.  
RA

p.s. Just a few more tidbits from the big missive... RA

For aminophenol there is some genetic link between the ability to metabolize a 'precarcinogenic' substance (for aminophenol, this is basically a benzene ring with a OH and an amino group, prime for interaction with DNA if absorbed) and the development of disease (bladder cancer was a primary example with some evidence from the earlier mailing, but who knows about what else will be found). In [that study](#), 'fast' N-acetyl transferase activity was associated with protection from disease. A 'fast' cytochrome p450 was also protective in the studied population. Furthermore, [meta-analysis supported their data...](#)

The current bladder cancer scenario has a pre-carcinogen modified in the liver into a potent carcinogen active in bladder... (illustrated in link at bottom)

Compelling evidence that aromatic amines, like 4-aminobiphenyl (in some hair dyes) can result in bladder cancer in workers has also been amassed.

Maybe those who wish to continue to use such products, even in the face of such data, can just hope to have a 'fast' metabolism (the acetylation of the aminophenol probably allows it to be cleared from the body) for pre-carcinogens!

Hopefully, someone is taking note of all this, and maybe already a test for the 'safer' form of the

linked genes (i.e. fast nat1, fast cyp450, low peroxidase) isn't far off (This is a hint to the hair color execs and/or biotech operations! come on, someone, let's get these things developed... a home-test would be nicest, of course. If you know someone who might help in this regard, please pass this on!). Having a good home-test result should certainly help one make a decision of whether to follow the latest fashion trends!

Fun - but maybe only really worth it if you can metabolize such products 'safely.'

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Here is the bit of news which led to these further investigations in the first place:

22 [hair dye ingredients are to be outlawed by the EU](#) in Dec 2006. 115 (!) more ingredients are currently under consideration.

\*\*\*

Here is one of the [early modern scientific studies showing mutagenesis \(changes in DNA molecules\) by hair dyes](#):

Proc Natl Acad Sci U S A. 1975 June; 72(6): 2423–2427.

Hair dyes are mutagenic: identification of a variety of mutagenic ingredients.

Bruce N Ames, H O Kammien, and E Yamasaki

Again I will point to the idea that going right back to biology basics to help understand gene variation and environmental exposure (to compounds which can ultimately affect nucleic acids in cells) can impact not only cancer development but incidence of other diseases. Environmental concerns are justified, and prevention is possible.

Take care!

## Tips and Tricks page

Natural 'stripes' are the best!?

Whatever your age, your natural hair color is the most likely to complement your skin tones, etc.

One important tip from several about the lure of 'trying out' a 'non-permanent' hair dye: sometimes these can leave lasting traces! This can be particularly dangerous, because it can directly lead to regular hair dyeing - trying to cover up a brassy or other color that comes out as other dye elements start to fade. Due perhaps to just one bad choice (i.e. a purplish shade of L'Oreal Castings circa 1995 comes to mind, which seemed to need a brown cover-up to block an odd metallic sheen that gradually developed over a few weeks), you can end up soaking your head every few months, even in the absence of worry over gray hairs!

\*\*This is a tip to take note of, particularly you gals and guys out there just wanting a bit of fun for the weekend... :)

\*\*\* Other tips for avoiding potentially toxic exposures that any of you have? Please send them on! \*\*\*

Here is one that came in, but it was a false alert (sadly):

Using [potato skins to cover your gray](#) hair!!

(Of course, after seeing this I had to find out who Dr. Anthony Youn and Rachael are, besides being out on AOL! I found out, with the help of Google - he's a plastic surgeon, and she is Rachael Ray, an Emmy award winning daytime TV gal!)

Since I thought it might be worth a try - I did a controlled test on a few long naturally white hairs, and (no need for a drum roll) nothing happened. too bad...

The extra crazy thing about this idea (besides the internet links about it!) is that maybe [potato juice can be used to lighten extra](#) skin pigments, even while potato skins theoretically might have added color to gray hair, because of [iron ion complexes](#)!

\*\*\* Luckily, a 'tip or trick' that is more reliable than that one comes next!

This tip isn't just about limiting exposure to hair dye, but about helping limit exposure to the many ingredients of concern found in many personal care products. It also is about protecting your hair from mechanical or heat damage, by learning to embrace its natural tendencies.

The idea is simply to find a hairstyle that makes the most of your hair, as it naturally could be, not go after what you don't have.

For instance, if your hair is straight and fine, enjoy a blunt cut that makes the most of it. If your hair is curly, try this: after washing your hair, brush out all the knots, just let it dry naturally, and see what happens.

If you never brush your naturally curly hair once it has dried, it won't get frizzy! No need for tons of different hair styling lotions, serums, or sprays!

Ironically, the original source of this tip had a gotten a 'permanent wave' and knew she wanted ringlets, not big frizz!

(Of course, frizz is usually the worst for people who straighten their hair, especially if they encounter damp weather conditions!)

For lack of another term, I'll call this the 'let it be' tip! Try it!

(Not only the Beatles, but parents of teens and many others will attest - this is often good advice!)

::-D

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While I don't want to be 'age-ist' - trying to stop covering up one's gray is particularly difficult, that is certainly a general consensus.

Here is one trick: a gradual way to let the 'distinguished' edges come out first, so you can get used to the idea, while staying relatively normal in your 'coiffure.'

An aminophenol formulation with absolutely no smell, and available at some health food stores (Herbatint) is packaged so there are two reclosable bottles. With this, you can make up just a couple of tablespoons full at a time, and try filling in your root area just at the part, as the grey comes in maybe every six weeks or so, so the rest of the grey hair grows and ultimately won't have to be so very short when/if you eventually decide to cut off more... This lowers dosages and may gradually get you comfortable with your own color.

Everyone can 'be the girl with the hair' these days, but why risk it...

Therefore, this method is the basis also for the new campaign, encouraging people to take **the natural hair color challenge!** Go for it! If possible, take pictures and send me your story!!

\*\*\*

Another new tip (2015) in this regard is due to the availability of new sorts of 'hair mascara wands' - even at a local 'health food store' - that can be used to blend in root lines, instead of doing the limited dyeing recommended above!

This can allow you to stop using hair dyes entirely, right away!  
(and without feeling that need to chop everything off!)

While this strategy would usually require daily attention, it thus is potentially even better than the original strategy found in the pdf (linked above) for the 'challenge!'

Please let me know whether it works well for you!

\*\*\*

Some people ask things like, 'but if I don't smoke, doesn't it mean it's ok to keep covering up a bit more?'

Potential DNA changes are tricky, with so much uncertainty about 'hit probabilities.' Furthermore, the longer one carries on covering gray, i.e. the greater percentage of white hairs there are, the harder it will be to stop without cutting off most everything to the roots, something very drastic! And of course the more gray root, the more often you'll feel like you have to cover it up!

These days, with even France cutting out public smoking, (the Swiss once again were proven slower, but they have finally acted in this regard! whew!), with people often trying to be very healthy, eating organic foods, avoiding smoking and excessive alcohol consumption, it seems funny to knowingly choose to put something toxic at the base of your scalp for hours a year, where it might be absorbed and cause who knows what really... Genetic changes, real mutations? maybe. If we think the world situation is too crazy now to consider such issues, think again (as I mentioned in the first note) of the fall of the roman empire, and those lead combs they used with vinegar to dye their hair, which could perhaps have contributed to their demise.

Alternatively, the California girl trick, with sunshine and citric acid to develop interesting stripes

in the hair could even be chemically beneficial (antioxidant effects!), if only it weren't for the problem of UV exposure! ;)

Enjoy life and take care of yourself!!!  
All the best!  
Rachel

You can also use this [blog](#) for any further comments, notes or other input!!!

Also (again!):  
Think about joining the new Swiss Public Service Association, [AGiR!](#) (Action for Genomic integrity through Research!)