

Dinner Speak hold on Tue night, 24.6.2014 at the
18th ETH Conference on Combustion Generated Nanoparticles

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Dear guests,

It is a great honour to deliver this Dinner Speak... although I am also a bit puzzled about this task. When we were young we were taught not to speak while we are eating - but that is exactly what Dr. Mayer asked me to do. Was the purpose of this offer that you can eat without speaking while I should speak without eating? But this brings up another conflict as we have also been educated to not eat while some one holds a speech. Anyway, ultimately I could not refuse the offer given that this year is really a special moment for this conference, turning 18 years. To resolve the conflicts, I will speak but take the freedom to be brief!

It means something - 18 years – at least in this country! With age 18 we celebrate the start of our lives as an independent adult. It is the final step of leaving childhood behind. So let us declare that the Conference on Combustion related Nanoparticles has become an adult! 18 years means freedom! Everything goes with 18 – there is no further limit for anything. Indeed, we have no other age limits – such as age 21. We get ultimate freedom - including the right to buy wine to toast for the 18th anniversary. So what should our wishes be while congratulating the Conference to becoming an independent adult? I would like to propose five wishes.

First, I very much hope that the most welcome and important funders and supporters of this conference do not misunderstand this step into independence as an invitation to stop their support. Indeed, at least here in Switzerland, parents can claim financial responsibility in the tax declaration for children up to age 26 if they are not economically independent, namely if they are still learning and studying. Is this not exactly what we do at this conference every year, we study, we learn from each other, share, disagree and challenge us, identify gaps of knowledge? That is indeed what this conference is all about – since the first year. 18 years ago Prof. Czerwinski and Prof. Kittelson disagreed on how to properly measure nanoparticles – thus, Prof. Siegmann and Dr. Mayer joined the debate and agreed to organize what became the first Conference in 1997. Before welcoming the Conference as an adult, let us applaud these fathers of this event – at least the three who can still be with us - and let us ask the three to stand up!

Second, I wish the conference keeps its most appreciated view on *application* also as an adult. It is not just about particle research for the sake of research but indeed it engages in the *application* of knowledge to use science to get a healthier air and, in fact, to get rid of the problem that we study! This is by no means a self-evident commitment and we should not take it for granted. Indeed some adults tend to become more selfish, dedicated to

serving their own interest only. The conflict of interest is in essence to not necessarily apply knowledge and to not resolve problems as this could ultimately mean that we will not need this conference anymore! Imagine a world where particles have been eliminated, eradicated! Many of us would lose their jobs and those in the room who have so far “unsuccessfully retired” because of their continued engagement in this field, such as Prof. emeritus Peter Gehr and others, they would be forced to truly retire or find a new dedication once particles had disappeared.

Third, I suggest to continue and to keep up the spirit of interdisciplinary cross-talk to line the engineers, the aerosol scientists, the modellers, the policy makers, the health researchers, the technicians and all others up with the goal of finding solutions to the benefit of a sustainable society – which means a society that does well in terms of social, economic *and* environmental circumstances. Why we should continue to go for these values is clear: social conditions, the economy, *and the environment* are fundamentally important drivers of peoples’ health. Please remember this message when you read the next headlines claiming that some newly detected gene or biomarker will revolutionize the health of the public and provide the ultimate key to “personalized medicine”. These overstatements will never be the answer to the key health issues. We do need a healthy environment and it is great if the conference continues to be dedicated to this as well.

Fourth, it is also great how this conference became increasingly international and this should be kept high up. Switzerland made major improvements in terms of pollution control – but we are obliged to not lose a global perspective. Billions of people continue to live in extremely polluted areas and we have to discuss and promote solutions that are applicable to their future development as well. It is great to see representatives of almost 30 countries this year. The globalized world calls for an exchange across cultures and countries and we need to share our experience and strategies with those from the most polluted places in the world. Yes I know, right now, during the World Cup in Brazil, the world has other ranking criteria than air pollution. But if pollution would predict the results of the games of tonight, England, and Japan will for sure be out of the game while Greece, the Ivory Coast, and Columbia may compete for the top ranks in the pollution scale. And India, China, Iran, Turkey, Eastern Europe, and Africa were just lucky to not play tonight; they would certainly beat the tonight’s competitors in an air pollution based ranking!

Fifth, and last but not least, I would really hope that the conference will keep its open spirit in considering air pollution a complex non-linear problem, thus, I hope the conference will never lock itself in any ivory tower. It was visionary of the funders to put the nanoparticles at stage, for sure. I hope though the Conference continues to acknowledge the complexities of the world of particles and air pollution. Particles change in size, form, origin, colours, surface, and health effects, and people differ in susceptibilities. If we would lock ourselves in an ivory tower for nanoparticles alone, we would miss the bigger picture. I say this in particular from a health perspective to emphasize that nano-sized ambient particles are not “more dangerous” or “less dangerous” than other size fractions. There is no “magic bullet” in the mixture of unhealthy air! Nanoparticles are though very relevant too, they are toxic as well, thus, emissions should be reduced! But public health does not need a lobby against the ultrafine particles *alone* but a lobby for clean air to protect peoples’ health.

Thank you for your attention and enjoy the dinner