

Robert McPherson, President at the IFSCC

What are the challenges involved in bringing together such a large and diverse body of scientific research?

The biggest challenge is simply the volume of quality science, we received over 1200 abstracts all of which had to be reviewed and scored independently. The IFSCC has a strict review process and timeline to ensure that only the strongest work is selected, but even then the programme covers a very broad range of topics, from fundamental biology and formulation strategies through to production scale up and advanced analytical techniques. We focus on 2 main areas fundamental research and applied research.

The real work is understanding what is established science, what is genuinely emerging, and what is simply a new application of something we already know. You also have to separate a strong scientific findings from what is simply a fashionable topic.

That is one of the great benefits of the IFSCC Congress. You are often seeing the science before it has been translated into commercial products. In some cases, you can see where the industry is heading several years before those technologies reach the market. For me, that is what makes looking across the full scientific programme so valuable. It gives you a much better sense of direction than looking only at finished products or current market trends.

How can events such as in cosmetics Asia help connect emerging science with practical product development?

Events such as in cosmetics Asia sit at an important point between where the scientific findings presented at the IFSCC Congress get translated into marketable ingredients and products.

The IFSCC is where you often see the science first. You see the mechanisms, the new delivery systems, the new biological targets and the new technologies while they are still being developed.

At in cosmetics, those ideas start to become practical and put into use. Ingredient suppliers, formulators, brands, manufacturers and researchers are all in the same place, so the question shifts from “is this scientifically interesting?” to “how do we actually use it?”

That connection is important because good science does not automatically become a good product. A product supported by weak science, on the other hand, may not live up to the marketing hype. It still has to be formulated, stabilised, delivered to the right site, supported by appropriate testing, manufactured consistently and translated into claims that consumers can understand.

The value of these events is that they shorten that distance between discovery and application. They also give scientists an opportunity to see which technical problems the market is trying to solve, which can feed back into future research.

Where do you see the greatest scope for closer collaboration across the global cosmetic science community?

The biggest opportunity is collaboration across disciplines. Cosmetic science is becoming much more complex. We are no longer dealing only with formulation chemistry and traditional skin biology.

We are increasingly seeing work involving biotechnology, microbiology, neuroscience, immunology, materials science, data science, advanced imaging and multi omics. Very few organisations can do all of that well internally.

The strongest research increasingly comes from combinations of organisations. A brand may understand the consumer and the clinical endpoint. A university may have advanced analytical capability. A biotech company may bring a completely new production platform. A raw material company may understand scale up and formulation. A testing laboratory may provide specialised models.

There is also an opportunity for better global collaboration. Different regions have different strengths, skin and hair types and sharing those capabilities is becoming more important as the science becomes more specialised.

Can you tell us a little about your upcoming presentation at in cosmetics Asia and what attendees can expect?

My presentation looks at the science coming through the IFSCC Congress as a whole, by looking at key words, trends, and changes in language and direction across over 8000 pages of unpublished research, from over 800 papers from global brands, universities, raw material suppliers and research institutes.

My presentation asks fairly simple questions: what is changing? What is new? What is award-winning? Where is the science taking us? And what's next?

I am looking at where the research is moving and which scientific areas are likely to influence product development over the next few years. The aim is to identify trends in the research in order to indicate the future direction of our industry by identifying the scientific direction of travel. That is where the IFSCC is especially useful because you often see these ideas years before they become commercial launches. For example, at the Barcelona congress in 2023 I identified similar technologies which eventually translated into ingredient launches in 2025, a two-year head start on the industry.

What role is Asia Pacific playing in the development of cosmetic science and innovation?

The IFSCC congress in Perth is the first time in 20 years that the IFSCC congress has been held in person within Asia Pacific. So it's not a surprise that involvement from the APAC region has been particularly strong this year, with more submissions than Europe and the Americas combined.

Beyond this year's IFSCC Congress, Asia Pacific is playing a major role, both in the volume of research and in the type of research being produced.

A lot of the original research coming from this region is highly technical and increasingly combines fundamental science with a clear route to application and it's not just concentrated in the big countries, we are seeing emerging and smaller societies getting involved including New Zealand, Malaysia, Indonesia and Singapore.

One of the strengths of the region is the close connection between research, manufacturing, product development and the on-shelf product. In many cases, new scientific ideas can move quite quickly into formulation and testing because the different parts of the value chain are already closely connected. Many brands are now using original science to differentiate themselves from the crowd, rather than relying solely on their ingredient suppliers' data.

What do you think will be the biggest opportunities for cosmetic scientists over the next few years?

I think one of the biggest opportunities for cosmetic science over the next few years is around healthy ageing and, more specifically, how we can extend the healthspan of skin, scalp and hair.

For me, that is a much more useful opportunity than simply talking about longevity. Cosmetics are not about making skin or hair "live longer". The opportunity is to understand how we can help these systems maintain their normal function, resilience and ability to recover for as long as possible.

That opens up a much broader area for cosmetic scientists. Instead of only focusing on visible signs such as wrinkles, pigmentation, thinning hair or scalp discomfort, we can look at the biology underneath them. How quickly can skin and scalp recover after disruption? How well are cellular communication, repair processes and tissue homeostasis maintained over time? Can we identify what is gradually lost or becomes less efficient with age, and develop ways to support or restore those functions?

The same thinking applies to hair. Rather than only treating the fibre once it has been damaged, there is an opportunity to better understand the biology of the scalp and follicle, and how factors such as inflammation, cellular stress and changes in the local environment affect hair quality and growth over time.

I think that creates opportunities across ingredient discovery, delivery systems, biomarker development, advanced skin and scalp models and clinical testing. It also gives us a better framework for product development, because we are moving from simply correcting visible damage to supporting the underlying functions that help skin, scalp and hair remain healthy.

There is still a need to be careful with the claims we make. We should not imply that cosmetics can stop or reverse ageing. But there is a real opportunity to understand healthy ageing much more deeply and develop products that help maintain function for longer.

The opportunity is not to make skin, scalp or hair live forever. It is to help them stay healthy and function well for longer.