Editorial

The year 2024 was again an exciting and very fruitful year of cutting-edge science carried out by Swiss chemists. It was thus a difficult task for the SCS awards board to select only a few of the most outstanding contributions. At the last edition of the *Swiss Chemistry Science Night*, the SCS announced the laureates in a very festive ceremony. For me, the pleasure continued in reading an account of their achievements, and I am truly honoured to be able to share them with you in CHIMIA. As was already the case in the previous years, I was deeply impressed by the very broad spectrum of topics covered, a testament of the rich, diverse and intense research activity in Switzerland.

The fireworks start with the recipient of the **Paracelsus Prize 2024**, Prof. *Armido Studer* who details his ingenious use of oxazinoazaarenes (obtained by a dipolar cycloaddition of pyridine and an inexpensive alkyne) as a masked pyridine (or analogues), susceptible to simple functionalization, before restoring the pyridine core.

Moving to polymer chemistry, Prof. *Athina Anastasaki*, receiving the **Alfred Werner Prize 2024**, discussed her very important way to depolymerize polymethacrylates back to their monomers in a radical process, promoted by heat and LED-irradiation. This is indeed a key technology to the circular economy!

The recipients of the **Sandmeyer Prize 2024** are part of a team from EAWAG, who developed an efficient process to remove micropollutant from wastewaters using a combination of ozonation and activated carbon filtration.

Switching to the industrial sector, the laureate of the **SCS Senior Industrial Science Award 2024**, Dr. *Michel Mühlebach* summarised his journey from the discovery to the scalable synthesis of two crop protection compounds, currently on the market. A remarkable achievement!

Likewise, recipient of the **SCS Industrial Science Award 2024**, Dr. *Rosa María Rodríguez Sarmiento* described her research in developing treatments for Alzheimer's disease that aim for the cause and not just the symptoms as most of the current therapies do. In particular, she developed an oral modulator of γ-secretase, a multi-enzymatic protein that is involved in the progression of the disease, that is currently in phase II clinical trials.

There are two contributions for the **Green & sustainable Chemistry Award**. Prof. *Ali Coskun*, laureate of the 2023 prize, describes an innovative Pd-based adsorptive separation membrane, capable of recycling hydrogen that would otherwise be lost in the purge process of fuel-cells. Prof. *Rebecca Buller*, laureate of the 2024 prize, discusses the use of her directed evolution of enzymes technology for the manufacturing of flavours, fragrances, natural products and APIs. It is a spectacular example of successful collaboration between academia and industry.

In a quite unprecedented original approach, Dr. *Klemens Koch*, who received the **Balmer Prize 2024**, chose not to talk about his work, but rather of the work of Johann Jakob Balmer, well-known for his hydrogen spectral lines. And as a seasoned teacher, Dr. Koch proposes a series of simple experiments that can be carried out in a classroom!

The **METAS Award 2024** was awarded to Dr. *Andrea Rösch*, from Agroscope, for her unprecedented sensitive analysis of trace amounts of pesticides in soils.

Finally, the **DIAC Fellow 2024**, was awarded to Dr. *Florian Kleinbeck* who led us though the second-generation synthesis of Sacubitril, used in the treatment of heart failure, using the targeted evolution of a transaminase. This nicely closes the loop back to the work of Rebecca Buller, showing the immense importance of biocatalysis in the industrial synthesis of APIs.

This wide display of outstanding science will surely fuel your own creativity: a very good reason to take this issue of CHIMIA with you on your vacations, from sea level to the high mountains! I wish you a very pleasant and productive summer, and I look forward to meeting all of you at our Fall Meeting in Zürich on September 4.

Prof. Christian G. Bochet
President of the Swiss Chemical Society

The CHIMIA Editorial is grateful to Prof. Christian G. Bochet for his efforts in organising the *Swiss Chemistry Science Awards* issue and bringing together the prize winners from 2024.