The image shows the ACORN logo, which consists of the letters 'a', 'c', 'o', 'r', and 'n' in a lowercase, sans-serif font. The 'c' is black, the 'o' is red with a white center, and the 'r' and 'n' are black. Below the logo, the text 'A nanoparticle-based therapeutic applications and detection of Carbon mOnoxide ReleasiNg molecules' is written in a smaller, black, sans-serif font. The background is a vibrant red with several overlapping circles in white, light grey, and dark grey. Thin white lines connect some of the circles, creating a network-like structure.

acorn

A nanoparticle-based therapeutic applications and  
detection of Carbon mOnoxide ReleasiNg molecules

## Summer School and Thematic Workshop

Praia Verde, Algarve 19–22 October 2020

Praia Verde in Portugal played host to the ACORN Summer School and Thematic Workshop in October 2020.

In order for this conference to successfully meet, a number of alternations to the originally planned programme were required. As a result of international travel restrictions at the time of the meeting, it was necessary to enable active participation both in person and online. This was achieved by the provision of excellent video conferencing software and, instead of typical poster sessions, turbo short talks enabled all the participants to present their work and respond to questions and feedback.

This dedicated, four-day event for ACORN partners and associated participants was attended by more than 50 registered participants, and the conference was available online to the whole iMM community of >400 researchers. All of the ACORN partners actively participated in this joint summer school and thematic workshop and facilitated its delivery. The theme of this meeting was “Nanoparticle-based therapeutic applications and detection of carbon monoxide releasing molecules”. This research area is of key importance to iMM scientists and will further strengthen iMM’s potential in this area going forward. After opening remarks and welcome by ACORN coordinator Marta Marques, the first day of the programme was given over to academic research presentations. Research presentations enable the young researchers associate with ACORN the opportunity to learn about new areas of science and broadens their understanding of the field. Daniel Heller, Memorial Sloan Kettering Centre, US and Nancy Du, Weill Cornell Medicine, US presented very recent research advances in the areas of nanoparticle-based and carbon monoxide-based therapeutics for cancer. The plenary presentations

were followed by 11 short turbo talks to present latest research results by programme participants.

Day two of the programme, a dedicated Industrial Day, was made up of three distinct sections. The first, morning session was reserved for presentations from industrial contacts with a focus on how research, knowledge transfer and intellectual property all have their place and work synergistically during development of clinical therapeutics. Ricardo Perdigão, Hovione Capital, Portugal and João Seixas, TargTex, Portugal talked about venture capital investment and how to finance and manage investor/researcher relationships in start-up companies. Nick Sutcliffe, Mewburn Ellis, UK followed on with a presentation about the methods and management for intellectual property within the area of life sciences. The morning session concluded with a talk by Daniel Silva Varon, Neoleukin Inc, US, that described the development of therapeutics from academia to market through entrepreneurship.

Next for the day was the Knowledge Transfer Zone, an afternoon devoted to informal networking, which provided opportunities for all meeting participants to interact and share best practice in their areas of interest. The afternoon also played host to the ACORN second annual project meeting attended by all ACORN partners. The meeting discussed the significant progress and impact of the programme to date and planned how best to continue to drive the project forward and maximise the outputs from the programme. Particular emphasis was placed on the effective mentoring of students within the programme and how to overcome or at least mitigate successfully the difficulties arising from the COVID-19 pandemic. Day two was rounded off by a further 8 short turbo talks before dinner. This second day provided essential knowledge about industry and IP for IMM scientists and will enable them to ensure great networking and knowledge transfer both within this project and beyond.

The first part of day three saw the meeting focus return to the core scientific area of carbon monoxide releasing molecules and the use of carbon monoxide in cancer immunotherapies with presentations by Carlos Labão-Almeida, Instituto de Medicina Molecular, Portugal, and Carlos Romão, Proterris, Portugal. The day continued with a plenary session by ACORN advisory board member Jeff Wager, Proterris, US, in which he described his personal experiences in building a bio-pharma company from the starting point of only lab-based research results.

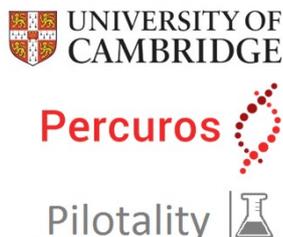
Day three concluded with a further 9 short turbo talks. After all of the turbo talks had been delivered, all of the presenters were judged and the three best presenters Maria Rebelo, Instituto de Medicina Molecular, Portugal, and Hannah Kiely-Collins and Madoka Hazemi, University of Cambridge, UK, were awarded prizes of book vouchers by meeting sponsor RSC Chemical Biology.

The fourth and final day of this summer school and thematic workshop was given over to extending the reach and impact of the ACORN project and focussed on the skills and strategies that can be used. Sérgio Silva began the day with an introduction into the psychology of imposter phenomenon and how this can work to undermine the confidence and creativity of scientists. Next, Cláudia Faria, Instituto de Medicina Molecular, Portugal, presented on the challenges of clinical and translational research from her unique perspective of being both a physician and a research scientist in cancer therapy.

ACORN advisory board member Nikolaus Krall, Allcyte, Austria then gave an overview of high-content image profiling and deep learning with Pharmacoscopy to work towards personalised drug combinations for oncology patients. The final talk in the programme was given by Fernando Gomollón-Bel, Graphene Flagship, UK, on strategies for effective science communication with a particular focus on outreach and approaches to dissemination.

All of the areas discussed during this very successful meeting — the main theme of nanoparticle-based therapeutic applications for carbon monoxide releasing molecules, knowledge transfer, entrepreneurship, IP, and scientific communication — are of immediate benefit to IMM scientists and will advance the potential of IMM in the future.

Consortium



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