



RESEARCH & INNOVATION SCOTLAND
Case Study

Cross-Disciplinary Knowledge Exchange in a Virtual Event

Lead by: SINAPSE

In collaboration with: SUPA, SULSA and NHS Research Scotland



An Annual Scientific Meeting (ASM) held by the [SINAPSE](#) research pool brings together the Scottish medical imaging research community from across disciplines and geographical locations. The event highlights world-leading clinical and experimental imaging research being carried out in Scotland, strengthens connections with invited speakers from prominent imaging research groups out with Scotland, offers early career researchers a welcoming forum to present their work and learn from others, and provides important opportunities for networking and cross-disciplinary knowledge exchange. After a very successful 2019 SINAPSE ASM in Dundee, which had the event's best turnout yet, the first two-day SINAPSE ASM was planned to be held in St Andrews in June 2020. Due to the COVID-19 epidemic, however, the decision was taken in March 2020 to move to an online meeting.

Planning a virtual event early in the lockdown period meant there were not many existing examples to learn from, and although cancelling the 2020 ASM entirely was an option, the SINAPSE Executive Committee felt strongly that the network would benefit from keeping in contact and sharing research progress. The online event platform [Hopin](#) was chosen on the basis of enabling live presentations with audience Q&A, breakout sessions, one-to-one video networking chats, and virtual exhibitor booths. Through pre-event preparation and enthusiastic participation from SINAPSE ASM delegates, the event's aims were still achieved in a virtual format.

Medical imaging research is cross-disciplinary by nature, and the 2020 ASM was representative in featuring presentations from researchers in [physics](#) (e.g., technical advances to image quality in ultra-high field MRI), [psychology](#) (e.g., EEG data showing graded differences in brain activity for different classes of information), [chemistry](#) (e.g., preclinical imaging evidence of cardiac inflammation identified with a novel PET radiotracer), [medicine](#) (e.g., abnormal CT perfusion findings in clinical cases of migraine with aura), and [computer science](#) (e.g., biomarkers from retinal vasculature images identified by deep learning algorithms). Delegates attended the virtual event from multiple countries, a further benefit for the international reach of presentations by researchers based in



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Scotland. Moreover, [presentation recordings have been made available](#) on the SINAPSE website for further dissemination.

It was a pleasure to have members from other Scottish research pools (including [SULSA](#), [SICSA](#), and [MASTS](#)) among the virtual ASM participants, and to have [SUPA](#) CEO Prof Alan Miller deliver a presentation on a recent cross-pool initiative (with SULSA and SINAPSE) to develop and expand academic-industrial partnership in Scotland around optical imaging. Of wide interest to attendees across disciplines, invited speakers gave plenary talks on two multicentre projects that recently secured challenge-led funding for harnessing the power of medical imaging big data in Scotland ([iCAIRD](#) and [PICTURES](#)), a timely update on chest imaging in COVID-19, and a keynote review of research linking multimodal neuroimaging and computational modelling. The event was supported by four industry exhibitors, [NHS Research Scotland](#) (NRS) and an NRS clinical research network. Feedback was very positive, to the degree that a virtual or partially-virtual meeting will be considered as a future model. A shared summary of this learning experience has been enthusiastically received by the cross-pooling community.