Core to Core Project

From 2013-2018, I was one of the international members of the "Core-to-Core International Research Collaboration Network for Developing Highly Functional Sensing Devices for Health, Safety and Security" (http://www.sanken.osaka-u.ac.jp/labs/kikaku/mission/S-CtC_Project/Welcome.html) led by Prof Kazuhiko Matsumoto from the Institute of Scientific and Industrial Research - SANKEN at Osaka University. I have strong links with SANKEN because I did my PhD in one of its labs, from which I graduated in 2000.

During the collaboration I attended several workshops in Osaka and at IMEC in Belgium. I also organized a meeting in Oxford in 2014 (see picture).

I have hosted several visits from students and academics from SANKEN at the Department of Physics of the University of Oxford, including Shingo Makishi Dr Chikara Dohno, Kaho Kamada, Ryota Hayashi and Prof Kazuhiko Matsumoto.

As I result of our joint work we have published a paper in 2017 (Amphiphilic DNA tiles for controlled insertion and 2D assembly on fluid lipid membranes: the effect on mechanical properties, Nanoscale 9 (2017) 3051-3058, C Dohno, S Makishi, K Nakatani, S Contera) and we have another one in preparation with the Matsumoto-lab on the biophysical mechanisms of biosensing with graphene field effect transistors.

Being part of this network has exposed me to the current state of device science and technology in Japan and in the other partner institutions, and has opened new collaborations and networks for me and my lab. The most enriching part of the experience has been to host Japanese students, seeing their adaptation to their research environment at Oxford and enjoying their making friendships with my students and postdocs. Their friendships and collaborations in Oxford will last much longer than the programme, and I am sure that they will lead to future advancements in science, or perhaps other activities beyond academia. - Professor Sonia Antoranz Contera

Core-to-Core meeting at the Oxford Martin School, July 24 and 25, 2014