ECHO’s collaborations with Cellule Studio & King’s College London

For the past two years, ECHO has been collaborating on projects led by Cellule Studio and Dr Pablo Lamata and his group from the department of Biomedical Engineering at King’s College London (developing new technologies to treat heart conditions) exploring the future of medical imaging – such as computer simulations to help surgeons plan surgery.

ECHO have involved our wonderful community in the research behind each project, and ECHO members has benefited from the chance to experience firsthand their work, and each time, to meet and talk to the designers and scientists.

Big Heart Data

The first project, *Big Heart Data*, explored the uniqueness of the anatomy and development of each human’s heart. Our ECHO Teens Hub had the chance to visit the exhibition at Science Gallery London as part of our 2019 launch event.

‘What if you could foresee how your own heart would develop and grow?’ ECHO Teens enjoyed a day exploring 3D heart models and Virtual Reality headsets, while also coming up with ideas about what

they would do with a 3D printed model of their own heart! (answers varied from 'make it into jewellery' to 'give it as a present'!)

See photos from the ECHO Teens Hub 2019 Launch Event: Science Gallery Visit

Kalostasis

Kalostasis, a creation by the team (Dr Lamata and Cellule) in collaboration with designer Lucy Hardcastle, is an interactive installation enacting the unseen flow of the heart. It premiered at the London Design Festival at the V&A museum.

'Have you ever wondered how it feels to stand inside a pumping heart?' ECHO Teens were invited to visit the exhibition, which took them inside a pumping heart simulation through touch, sound and sight. The group got an opportunity to ask questions about the heart, and feel what it was like to stand inside as the sounds moved around them (plus to see how many of them could fit inside for a group photo!).

See photos from the ECHO Teens V&A Visit: Inside the Heart

New project: *heart app*

We are proud to be part of a third project which will be released in 2020: a mobile app that allows people to record their heartbeat sound with their smartphone, to share their heart sound with their friends and hear and visualise changes (e.g after exercise or meditation.)

Every app user will contribute to an anonymous online archive at King's College London, helping researchers to push the limits/potential of heart diagnosis through mobile technologies.

Like hearing a heart sound through a stethoscope, heart sounds have precise and very useful diagnostic information for both doctors and patients….They are developing new technologies that will allow patients to record their heartbeat through their phone which has huge potential to reduce the need for a hospital check, as well as empower all of us to learn about our own hearts.

Stay tuned for more on this project!

What we do

ECHO is dedicated to supporting children and young people with heart conditions and their families, at every stage of their heart journey. Families are supported at every stage of their heart child's journey through childhood, teenage years and during the transition to adult services.

We provide:

- Specialist antenatal classes for parents whose unborn child has been diagnosed with a heart condition
- Events for children and young people with heart conditions to explore their conditions, learn practical information and meet other young people
- Parent-to-parent support from within our ECHO community, and a private online community group
- Resources to the hospital including welcome packs, specialist play equipment, toys, crafts and books
- Sibling support and events
- Community events open to the whole ECHO community
- Tailored information and resources
- Bereavement support

ECHO receives no government or NHS funding, and rely on the generosity of individuals like you in order to continue our support.

You can get involved by donating, fundraising or volunteering with ECHO – there are lots of ways you can make a difference.