



LIFELAB ANNUAL REPORT

2019 / 20



OUR MISSION

LifeLab's mission is to empower children and young people through scientific discovery to make positive lifestyle choices for their physical and mental health, wellbeing and resilience - now and in the future and for their future children.

Launched in 2008, LifeLab is a unique educational project created by the University of Southampton in collaboration with University Hospital Southampton where it is based. LifeLab comprises a purpose-built classroom and laboratory facility with state-of-the-art equipment and a dedicated team of educators and support staff. In turn the children and young people learn how their actions impact not only on their own health but on the health of their future children, captured by the phrase: *Change the beginning and you change the whole story*. By using real laboratory equipment to take part in a range of experiments such as visualising their carotid arteries and extracting their own DNA, students have an immersive experience with the science behind what they are learning.

LifeLab's Mission

- Reverse the trend of rising unhealthy behaviours and lifestyles for children and young people in the UK.
- Address the link between health behaviours, disadvantaged backgrounds and under achievement to reduce social and health inequality.
- Co-create with children and young people an environment to allow their voices to be heard, to advocate for change and to enable them to flourish, building resilience for a changing world.

LifeLab's Research Aims

- Undertake research to build the evidence base for ways of enabling behaviour change in children and young people.
- Support and empower teachers and academic staff to encourage behaviour change with their students.
- Increase scientific and health literacy.
- Increase awareness of, and interest in, STEM subjects and careers to ensure a talented, resourced and diverse future workforce.



ADAPTING OUR WORLD

In March 2020, all our face-to-face work was halted as a result of the COVID-19 pandemic. From the start, the LifeLab team supported a real-time initiative, led by researchers from the MRC Lifecourse Epidemiology Unit, which aimed to explore how young people (aged 12-19 years) responded to government messaging. As a direct result of this work, and informed by our discussions with young people, a resource pack was prepared to signpost young people to support during the first lockdown. Alongside this work, planning to enable our other programmes to continue began. Understanding how to provide the Young Health Champion Qualification online, enabled our cohort of young people who were enrolled onto the course to be able to continue their studies and successfully complete the qualification.

Our annual summer school for young people thinking of following a career in medicine was redesigned to enable online delivery. We worked with researchers and scientists to develop an online resource to allow our successful Meet the Scientist programme to continue to provide inspiration for young people and finally, we recognised the opportunity to apply our 'science for health literacy' programme to include a wider focus on health, encompassing communicable diseases, and in particular, COVID-19. Work began to develop a module of work to address the unique challenges young people are living through.



EXPANDING OUR COMMUNITY

From the central LifeLab hub, our many projects and opportunities extend out, creating a unique community of students, educators and researchers who learn from each other. That community has expanded into an online space this year with hands-on experiences replaced by virtual innovation

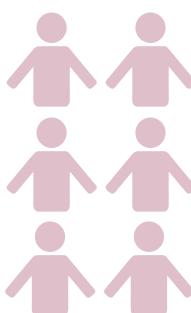


OUR (HALF) YEAR IN NUMBERS

We are proud to have reached more students, trained more professionals and inspired more scientists to share their work with young people, particularly in this challenging year!



Level 2 Young Health Champion qualifications awarded by the Royal Society for Public Health



'In-Person' Meet the Scientist sessions delivered



Students participated in a developing talent programme



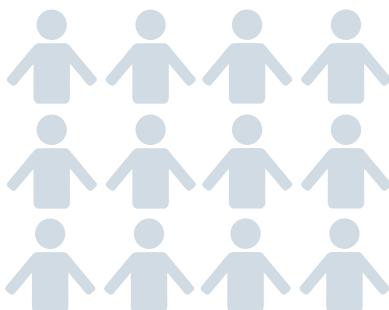
Schools recruited to the EACH-B Randomised Controlled trial



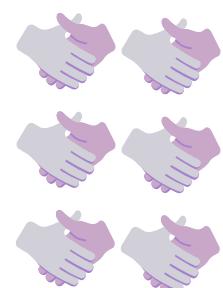
Young people took part in the TeC-19 research project, from across England



More students experienced LifeLab



Teachers and scientists undertook professional development



since opening



teachers have been trained



students have participated



researchers have been trained





GAME ON FOR EACH-B

Our latest research project EACH-B started the new year by welcoming the first cohort of students to the study

In February our latest research programme recorded a major milestone by welcoming the first cohort of students to the study.

The team was excited to officially begin the brand new research study with the first students taking part in the Engaging Adolescents in Change Behaviour (EACH-B) programme.

The health education project is based on young people discovering for themselves how their lifestyle choices can affect them.

The EACH-B project builds on the intervention, combining it with support from teachers and the use of a specially developed smart phone app with game features.

Students from Hamble School were among the first to experience the new intervention being led by Professor Mary Barker, a psychologist and director at LifeLab who specialises in the development and evaluation of behaviour change interventions designed to improve diet, physical activity and well-being.

The EACH-B project is built on the existing LifeLab programme which aims to help young people understand how the decisions they make now could have health implications in later life. Teenagers who visited LifeLab, which is based at University Hospital Southampton, helped produce the digital game, alongside health researchers and scientists.

Those ideas were then sent to game designers at Glasgow Caledonian University who created it and then tested on LifeLab students.

The aim is to educate young people about the impact their lifestyle choices will have on their health and the health of their future children and encourage them to improve their diet and exercise habits.

The £2.2m EACH-B project, led by the University of Southampton, is being funded by the National Institute for Health Research (NIHR) Programme Grants for Applied Research Programme [RP-PG-0216-20004].



[Watch the EACH-B app in action](#)



CULTIVATE

Playing our part in the planet's future health

The link between our environment and our health is something that LifeLab has always been invested in. Along with the core immersive experience in our labs where young people get the chance to discover their own health and what lifestyle choices they can make to improve it, we have been increasingly looking at how environmental factors impact outcomes too. One of the projects we supported the development of this year, was in conjunction with colleagues from across the University of Southampton; Dr Mark Chapman from Biological Sciences in the Faculty of Environmental and Life Sciences and Dr Lucy Green from Human Development and Health based at the Institute of Developmental Sciences in the Faculty of Medicine.



With funding from the Public Engagement with Research unit (PERu) at the University of Southampton, the partnership teamed up to create a hands-on research project for teenagers,

Using the same self-discovery approach that has underpinned the success of LifeLab, we invited year 9 students from Thornden school onto the Highfield Campus to tour the state-of-the-art growth rooms and greenhouse facility and take part in workshops examining links between climate change, crops and individual health.

The aim is to support them in making the connection between the environment and their own health choices. Discussions were held around the scale of deforestation, plant-based diets, the effect of environmental toxins and climate change on their health, and whether growing more of our own food instead of relying on transported imported products could have an impact. As part of the project Dr Kathryn Woods-Townsend, LifeLab's Programme Manager and Claire Colbain, LifeLab's technical lead, developed an escape room style activity to engage young people and enhance their learning through a series of tasks and challenges. Following a successful launch of this 'Escape Climate Change' activity, Thornden school students were prepped and ready to run the Escape Room themselves for visitors to the University of Southampton's Science and Engineering Festival. A casualty of the pandemic, the #SOTSEF event became a month long digital event, at which the Escape Room was developed as an online Escape Room. This was accompanied by a live event where an online presentation, followed by a question and answer session involving Mark, Lucy and Kath, aimed to explain the research behind the project and answer any questions the audience may have in relation to their work.

A fabulous example of a project that spanned the pandemic and had to adapt delivery in order to continue our engagement with young people and the wider public.



LIFE THROUGH A LENS

Creative skills were on show with two photography projects, both designed to capture the reality of life as a young person.



Students who were engaged in the Tec19 programme were invited to capture their experience of living through the COVID-19 pandemic through a photographic competition. Young people from across the country entered, showcasing their photography skills and illustrating in a single frame the impact the pandemic was having.

The start of the year saw our first opportunity involving students from Arnewood school working alongside fine art photographer Annabel Foot, capturing their take on food, exercise and health.

The culmination of their work went on display at the Forest Arts Centre in New Milton and also featured in a book called 'Waving Through a Window'. The photographic project was funded by a grant from the Wessex Clinical Research Network and was linked to the EACH-B intervention programme



FOR OUR FUTURE

Creating a resource pack to support young people through lockdown

The pandemic saw strict lockdown measures imposed in the Spring of 2020. From the online sessions we held with young people right at the start of that time, our team understood the impact and challenges that young people were facing early on. Feelings of anxiety about their education and wider impact of COVID-19 along with being cut off from their friends, were all being articulated by the young people we spoke to.

In response, the team set about compiling a resource pack, signposting young people to a range of educational and wellbeing support opportunities available online and for free.

Under the title #ForOurFuture, and supported by a social media campaign using the same hashtag, the aim was to create a community where our young people could feel safe and supported through opportunities that were open to them, online and for free.

[Download the full pack of resources here](#)



ONLINE QUALIFICATIONS

Lockdown no barrier for Young Health Champions as learning continues online

When the lockdown forced us to close our doors at Lifelab, we were midway through an exciting year of research and projects all aimed at supporting young people in making healthy lifestyle choices. One of those projects was delivering the Royal Society for Public Health's Young Health Champions (YHC) qualification with a group of students from Thornden School. The Ofqual-regulated YHC qualification, developed by RSPH trains young people up to become ambassadors for healthy lifestyle choices. Along with increasing their own understanding of why good health matters, the students are trained to become effective ambassadors in their own communities, with skills to signpost their peers to further support if needed. LifeLab is an accredited centre to deliver the Level 2 qualification and in 2019 was awarded the 'Centre of Excellence' Hygeia award by RSPH in recognition of the quality of our work. A group of Year 9 students had completed three of the four units for the qualification, when the restrictions were imposed. After reviewing the syllabus, LifeLab educators came up with a plan to enable the students to complete the qualification online. LifeLab lead for YHC, Lisa Bagust explains: "Despite not being able to work with the students at LifeLab we wanted to look at how our work could continue by keeping in touch in other ways.



Student Ewan (above) at work online and (above right) educator Lisa Bagust supports students virtually

"Having reviewed the final unit the students needed to complete we felt we could provide the right support in order to deliver it online and so have set up virtual meetings to enable that.

"The students' final task is to deliver a health campaign in their own communities which ordinarily would be delivered in school, so they will have to adapt their campaigns to be able to be delivered online and also to consider how best to reach their peers.

"Those campaigns could be on topics like physical and mental health, sleep patterns and social media use; all really relevant issues for young people in the current time. We were excited to see what they come up with.



"The group held online meetings and then worked on the challenge of creating their health campaigns online. They considered how they can deliver their campaign outside of school using other platforms rather than face to face contact with their peers at school.

Student Ewan, 14, said he was pleased to have been able to complete the qualification. "It would have been a shame if the work we had put in didn't count for anything so I am pleased we get to finish it off. I have really enjoyed doing the course because I have learnt much more about why health matters and I think it is important to try and help other people who might need support."



Watch the ITV Meridian report on our work here



VIRTUAL SUMMER SCHOOL

First ever online event for budding medical students goes international as young people log on across the globe

An opportunity designed to give aspiring medics an insight into life at a busy acute hospital, was transformed into a virtual experience.

The 2020 LifeLab Medical School was delivered entirely online over the course of a packed two-day programme. Due to pandemic restrictions, students could not come into University Hospital Southampton for the experience where they would normally be involved in a series of hands-on workshops and tutorials along with shadowing doctors and healthcare professionals. But that didn't stop the LifeLab team from delivering the experience online, enabling young people to still get a sense of what life as a doctor or medical scientist involves. With the support and involvement from the University of Southampton and UHS, the team put together the event with interactive live sessions, self-directed modules and online activities. Participants logged on from across the globe.

Along with live sessions with cardiothoracic consultant Aiman Alzetani, the attendees had the chance to speak to current medical students and chat to degree admissions specialist Professor Sally Curtis. Modules on clinical and communications skills were also delivered along with an escape-room style learning experience and virtual day-in-the-life insights with a range of researchers.

The move to a virtual experience also enabled the school be accessed internationally.

More than 80 students, mainly from colleges and sixth forms, enrolled for this year's experience and enjoyed the programme from across the world with young people logging on from Germany, Spain and Turkey as well as

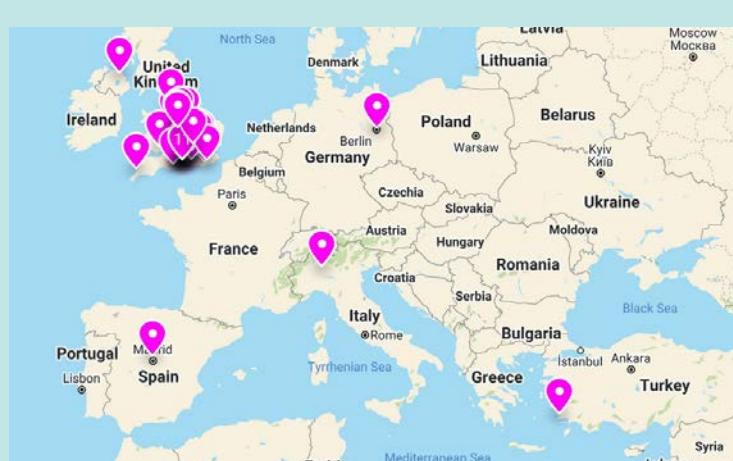


LifeLab lead Dr Kath Woods-Townsend helps produce the summer school behind the scenes

across the UK. LifeLab's Developing Talent Lead, Kate Bartlett said: "It was always going to be a challenge transforming a two-day interactive event into an online experience. It was wonderful to have the support of the University of Southampton and UHS which enabled us to come together to deliver an amazing summer school that was so well received.

"We are looking forward to learning from and building on this experience. The team was delighted to receive positive feedback from students who attended, one said: "I especially liked the incorporation of webinars as well as independent sessions which helped me feel more in control and felt personal, while still having interaction with experienced experts."

The team took a lot of learning from their first virtually interactive summer school and hope to build on their experience to offer other LifeLab experiences online to improve accessibility across a range of groups and communities.

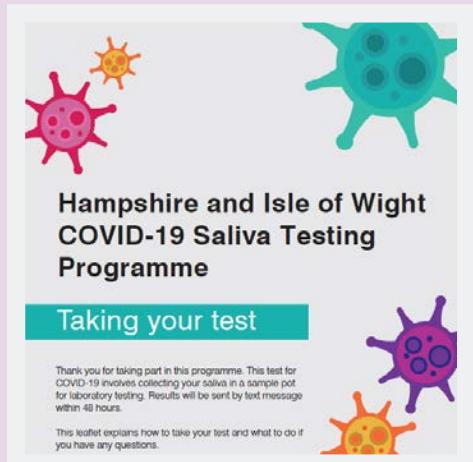


GROWING LIFELAB IN 2020/21

The Saliva Testing Programme

Since August 2020, the LifeLab team has been supporting the Southampton and subsequently the Hampshire and Isle of Wight Saliva Testing Programme.

Knowing that engaging children and young people in understanding the importance of surveillance testing for COVID-19 was essential, we felt this was an opportunity to not simply provide tests and require young people to participate, but to engage and inform to ensure motivation to participate over a potentially lengthy time period. Engaging children and young people directly gives them agency over their participation and enables them to consider the impact of their participation not just at an individual level, but so they appreciate the consequences of their choices on their families and communities. We also know how important children and young people can be as agents of change in their families. High uptake to population prevention programmes (e.g. mass testing) is key to their success in preventing transmission and will also be essential to build a strong positive response to a vaccination programme. Building on our approach to engaging with young people, we knew this couldn't simply be information giving, but had to involve interactive activities, allowing space for discussion to allay concerns and address misconceptions.



LifeLab Online

The development of the 'Science for Health Literacy' programme, to support the Saliva Testing Programme, has highlighted the opportunity and the need to develop an online educational platform to facilitate the roll out, during the Spring of 2021, of the COVID-19 educational resources for school/college students and their teachers at a national level. Our evaluation indicated that both students and teachers see such resources as crucial to engagement of students with ensuring a safe school environment during the COVID-19 pandemic. Such resources are particularly valued by schools that serve children with special educational needs.

COVID-19 Warriors

As part of our work with the Saliva Testing Programme, with funding from the Department for Health and Social Care, we have been designing and developing education and engagement materials for primary and secondary school students, college students and students with additional needs. These will be used to support the proposed upscaling of provision of saliva testing in education resources. Our primary programme of work introduces children to a team of COVID-19 Warriors, who use their special superhero powers to keep themselves and their communities safe.



OUR TEAM

Our staff work collectively to deliver interventions and professional development, organise research trials, develop partnerships that give young people opportunities

Dr Kathryn Woods-Townsend
Programme lead



Cat Perrin
Business
Development
Manager



Lisa Bagust
Teaching fellow



Claire Colbain
LifeLab technical
lead



Donna Lovelock
Teaching fellow



Kate Bartlett
Developing talent
lead



Sian Bryant
Communications
lead



Keep in touch...

@LifelabSoton

@lifelabsouthampton

@lifelab_soton

www.efolio.soton.ac.uk/blog/lifelab/

lifelab@soton.ac.uk

023 8120 8979

Our directors



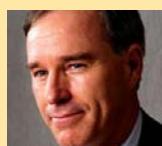
Professor Hazel Inskip



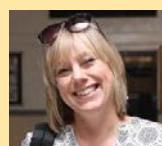
Professor Mark Hanson



Professor Marcus Grace



Professor Keith Godfrey



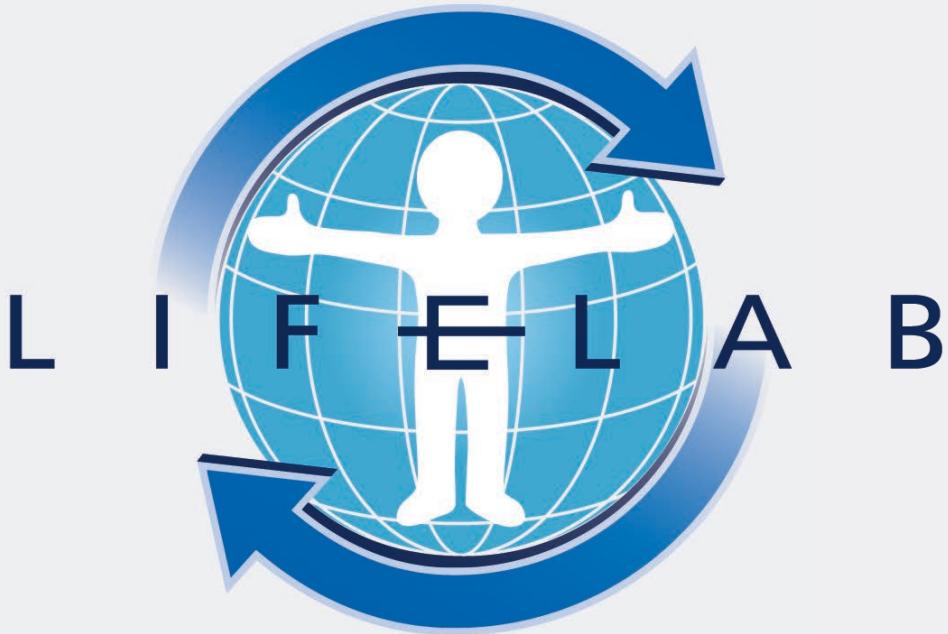
Professor Mary Barker



Professor Janice Griffiths



Dr Kathryn Woods-Townsend



LifeLab
Level D, Room LD150
Mailpoint 847
University Hospital Southampton
SO16 6YD

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