THE LAB Report

An evaluation of THE LAB: a pilot scheme for facilitating collaborations between scientists and artists for the purpose of engaging the public on research in the life sciences.

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& Fuel

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Executive Summary

THE LAB was produced and coordinated by Fuel, partnered with Queen Mary University of London, and supported by Wellcome Trust, and Arts Council England. The objective of THE LAB was to pilot a process for coordinating small scale collaborations between two types of experts: scientists and artists. The outputs from these collaborations were artistic, and were designed with the aim of engaging the public on topics themed around life sciences that directly impact our lives (e.g. global health, public health). Given that the planning of THE LAB started in January 2020, the themes were prescient.

The call in May 2020 for project proposals was sent out to the scientific community for their submission to participate in THE LAB. 5 project proposals were considered from scientists (countries include: UK, Mexico, South Africa), and 3 were eventually commissioned. Fuel facilitated the matching and coordination of Artist to Scientist (and vice versa). The total cost of THE LAB was approximately £13,000, and the projects covered the following themes: misinformation, genetics, and functional sustainable foods. The artistic outputs from the collaborations are at varying stages of development, with one complete. Two of the outputs are interactive websites (one of which includes a virtual reality of plants, the other includes engaging with stories of genetics and ancestry), and one is a mutating musical phrase.

This aim of this report is to: 1) describe the processes involved in setting up THE LAB, 2) elaborate on the achievements of THE LAB through a case study of one of the commissioned projects, and 3) to present insights, conclusions and recommendations on potential future LABs. In the main, the findings from the objective and subjective metrics devised to evaluate THE LAB suggest that it is a successful mechanism for enabling collaborations between scientists and artists, and that can engage the public in several innovative ways.

Main Report

The overall aim of this report is to examine the challenges and successes of a pilot scheme called 'THE LAB'. It set out to develop a mechanism for collaboration between two types of experts. Specifically, the collaboration between scientists and artists was to facilitate artistic outputs that would interest and engage the public on topics associated with the Life Sciences[1].

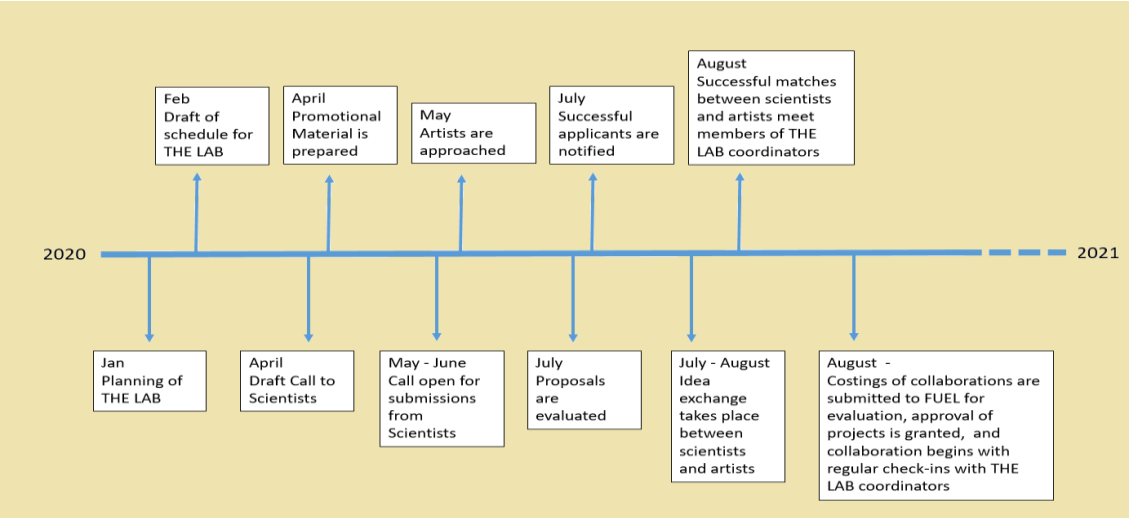
The report is divided into three: 1) setting up and implementing THE LAB, 2) a case study that explores in depth one of the projects supported via THE LAB, 3) insights, conclusions, and recommendations.

Section 1: Details of THE LAB

Developing documentation: Given the novelty of the pilot scheme, at the planning stages of THE LAB several documents were prepared: 1) schedule and budget for coordinating the whole process; 2) advertising THE LAB; 3) application form; 4) criteria for evaluating project proposal submissions from scientists; 5) pre, during and post assessment questionnaire (completed by scientists, artists and Fuel members), and 6) idea development form - with costings and a project schedule[2]. The reason for doing this was that should a scheme like this be replicated, then a record of all relevant aspects of the process were in place, and could be evidenced.

The overall length of time it took from planning to initiation of THE LAB was approximately 7 months, with the details of the timeline presented in Fig. 1.

Figure 1. Timeline of THE LAB from planning (Jan 2020) until initiation (August 2020)[3]



[1] Life Sciences are a collection of scientific disciplines that investigate living organisms (e.g. Biology, Biochemistry, Biotechnology, Biophysics, Ecology, Epidemiology, Epigenetics, Entomology, Genetics, Health (Global, Public), Microbiology, Pharmacognosy, Virology, zoology).

[2] All documents are presented in Appendix i: Materials for THE LAB A to F

[3] The schedule as it appears in Appendix i is slightly different to the one in Fig 1. adjustments had to be made due to unforeseen externalities that presented a host of new challenges. However, even with this, the change to the schedule was actually minor, with only 4-6 week delay.

Key stages of implementation: The main activities involved in setting up THE LAB took place between May 2020 and August 2020. From the scientific community end the call for proposals was sent out along with the application process in May (see Appendix i: Materials for THE LAB – B). Engagement with the process was monitored, and a complete list of all the organisations that were contacted along with details of the level and amount of engagement is presented in the Appendix (see Appendix ii: THE LAB recruitment analysis).

In May 2020 Fuel also began the process of inviting artists to participate in the LAB, this involved speaking with a total of 23 artists over a two-month period from May to June 2020. Three successful applicants from the scientific community were notified in July, and both scientists and a range of artists were selected to take part in Fuel's brokered idea exchange sessions in July 2020. The exchange was designed to facilitate discussions between a scientist and an artist to co-create projects that would engage the public emotionally as well as intellectually on the scientist's research interests. Between 2 to 3 iterations of these sessions took place, so that each scientist had met with 2 to 3 artists to ensure that the match between scientist and artist were aligned on several criteria. In particular, the focus was that the artist's interests complemented the initial project proposal the scientists had submitted, that both types of experts (artists, scientists) complemented each other, the collaboration was feasible in the time frame, the collaboration could be an effective means of engaging a wide audience or else the target audience). Once the pairings had been arranged, in collaboration, the artist and scientist pairing then drafted a proposal of the ideas that had been developed, along with the costings, which were submitted to Fuel for evaluation in August. Thereafter, once the projects and costings had been approved the individual projects began. Each project required input from Fuel, along with the Academic Lead at Queen Mary University of London (QMUL) the partnered academic institution. In fact, since August 2020, to date (as of Oct 2021) all of the projects are continuing and expanding in their scope and ambition.

Summary of the three commissioned projects: ***Vaccinium*** by Cease Wyss and Lori Bystrom; ***Misinformation*** by Matthew Herbert and Santosh Vijaykumar; ***Belongingness*** by Raquel André and Sandra Romero-Hidalgo. The cost of each project, in total, is approximately £4,000.

Vaccinium by Cease Wyss and Dr Lori Bystrom (Bath Spa University) is designed so that the audience experiences the world of Vaccinium plants through a virtual reality and/or augmented reality platform. Vaccinium plants typically produce fruit that have significant health properties (e.g. varying types of cranberry, blueberry, huckleberry, lingonberry). The aim is to be engaging and informative based on scientific research and indigenous accounts and stories about how these plants are used for infectious diseases and other conditions.

Misinformation by Matthew Herbert and Dr Santosh Vijaykumar (Northumbria University) is designed to create a way to hear how unhealthy or dangerous information can pollute and overpower. It will do this by creating 3 short, shareable films (similar to a meme or viral content) of pieces of music. Initially played on a piano we will use musical notes to represent pieces of data (in this case misinformation). The film will show a piece of music

playing in realtime and then as the misinformation notes spread through the piece, the original melody is obscured and harder and harder to hear.

Belongingness by Raquel André and Dr Sandra Romero-Hidalgo (National Health Institute of Genomic Medicine (INMEGEN) in Mexico City) is a project that uses a website as a public online space with a map of the world to facilitate interactions between people and the concepts behind genetics. Through the interactive map, people who encounter the site can see how they are genetically connected based on the genetic ancestry information of the scientist Sandra and the artist Raquel. In addition, key points of connection "nodes", are used to house archives (texts, images, videos, emotions, etc…) that will be displayed when clicking directly on the node to further elaborate concepts associated with genetics and ancestry.

Section 2: A CASE STUDY

In this section the aim is to use The Belongingness project as a case study. Because it was the most developed of the three projects, it is possible to provide an account of the various stages of THE LAB and how the mechanisms that were in place facilitated the exchanges between the Scientist Dr Sandra Romero-Hidalgo and the artist Raquel André through to the outputs that were produced.

Details of Scientist and Artist: The scientist, Dr Sandra Romero-Hidalgo is a geneticist with a specialism in genomics[4] and examines the genetic variation in the Mexican population. Raquel André is a performer, actress, director, curator and an obstinate collector of the ephemeral. She's currently an Association of Performing Arts Professional (APAP) APAP artist under the support of Teatro Nacional D. Maria II (Lisbon, Portugal).

Initiating the project: Sandra had met with two artists for one hour each in the idea exchange sessions coordinated by Fuel. It was clear to Fuel that the pairing of Sandra and Raquel was the best match. The time between the date of commissioning and the initiation between artists and academic conversations was less than a month, and they started collaborating in July 2020, and were commissioned shortly after submitting their proposal in August 2020. It is likely that the dynamics and the complementarity between the two may also explain the speed with which the project was launched, and the fact that it is the only one of the three commissioned projects that is complete. Though it is worth noting that there are continuing avenues of work that both artist and scientist are exploring (see 'further collaborations' section).

Implementing the project: The total length from initiation to completion was approximately 10 months. The first phase of their project was to undertake DNA tests, which contributed to one of the key artistic outputs. This process was rather lengthy and it was only towards October/November that they were able to move onto phase 2. Phase 2

[4] Genomics refers to the study of various features of an organism's entire set of DNA (Genome) along with the factors that impact on the structure, functioning and adaptation of the genome through environmental conditions.

involved further planning and contracting. A web designer was appointed between November and December. In December, Sandra and Raquel met regularly with the web designer to discuss what the website would include and look like. Between January and March 2021 they worked on the scientific content, they e-meet through Zoom and their DNA relatives. Between March and April 2021, they wrote up the stories based on the DNA relatives they had talked with, put the overall content together, launched a public questionnaire (first public facing part of the project). The website was launched in April 2021.

Nature of the interactive process: Sandra and Raquel met bi-weekly at first and closer to the production finish line weekly. This suggests that their process was highly collaborative, and the scientist was also highly invested in, and involved in all artistic aspects of the production. The initial idea of meeting DNA relatives was the scientist's, however both assumed very similar roles throughout the process. The scientist was particularly key in making sure that the scientific data was being displayed correctly, particularly in their world map of connection website (https://www.belongingness.info/).

Final stages of the collaborative process: The project took the form of a website where the artist and academic share with their audiences/website users collections of personal findings. e.g. they collected their DNA relatives' stories via Zoom meetings and wrote them, they took photos of objects during their meetings, their recorded parts of their conversations, and they included biometric photographs. The target audience was quite broad. It included students (BA, MA, PhD) with an interest in making art to disseminate scientific research, people who have taken or are interested in taking DNA tests, regular theatre goers, and regular museum goers. We know we reached theatre goers (through Fuel's followers) and students (through QMUL's and other universities in the UK, Portugal and Mexico).

Level of external engagement with the collaborative outputs: Between the 25th of April and the 30th of May 2021 **2.1K** people visited the website. The average engagement time was of **3min 09s**, the average engagement time per session was **1m 36s**. **1K** viewed the Map, **435** viewed the Home page, **185** viewed the Participate page, **147** viewed the stories, whilst the Scientific content page was viewed **60** times. Instagram: Combined impressions - anytime our post appeared on a person's screen - **~4K**, and Combined reach - the number of people who would have seen our post - **~3.7K**, and Combined interactions – **175**. Twitter: Combined impressions **~20K**, Combined engagement – **209**.

Clearly the artistic component of the project was engaged with more than the scientific component, but that said, scientific concepts underpinned all aspects of the website. It is likely that the explicit scientific component of the website may have been too technical for general audiences to appreciate, whereas the artistic component was much more interactive and informative in an entertaining way that made the scientific content more accessible.

Final stages of dissemination of outputs: 2 to 3 months before launching the project/website in April 2021, Fuel initiated conversations about who to contact. Contacts

were initially restricted to key UK universities (Including: University of the Arts London: Central Saint Martins, Central School of Speech and Drama, King's College, Goldsmiths – all in the UK).

Further collaborations: Given the success of the collaboration, along with the successful working relationship between the artist and the scientist, Fuel is currently in conversations with the artist about a potential next phase. Fuel planned a follow up planning meeting with the artist and her Producer to look into the possibility of commissioning her to create a live or documentary iteration of Belongingness. Fuel had also been looking to reengage the Scientist as a consultant and/or collaborator on the project. Four things of note from the follow up discussions were: 1) The scientist is likely to be working with a team of 2-3 creatives to do some creative thinking/planning" (the dates of this have shifted from Sep-Nov 2021 to March 2022); 2) in the summer of 2022, the scientist and a creative team, potentially including the artists, will have a 1-2 weeks creative residency; 3) Fuel have created a timeline with the aim of premiering the work in 2023; 4) Fuel met in September 2021 to discuss all of the above and the creative development to progress the follow up collaborations.

Summary of Case study

How successful was the project? Judging the success of any collaboration is complex because success is multidimensional. Moreover, there is no clear precedent for what ought to be a valid measure of success given that for different members involved in the process the values they place on particular features of success will also vary (e.g. funders – value for money, producers – audience numbers, etc…). For the sake of simplicity, the discussion will focus on two kinds: public engagement (e.g. breadth of audience, frequency of engagement, quality of engagement), the collaborative process (e.g. frequency of interactions, quality of interactions, future opportunities for interactions).

Public engagement: Other comparators would have been good in order to establish in advance whether public engagement resulting from this project was successful. For instance, comparing The Belongingness project with other similar projects of scale and cost. This is hard to achieve because of the novelty of the scheme used to produce this project. However, it is clear that relative to the two other projects commissioned via THE LAB, The Belongingness project is a success from a public engagement perspective, only in that it has produced an output, whereas the other two projects are still incomplete. Two further related matters to raise with respect to the specific engagement of the audience are that: 1) the audience were least engaged with the purely scientific content of the webpage explaining DNA etc… 2) the audience response rate to the questionnaire on the website may not be high (https://www.belongingness.info/participate/step-1/) because it isn't clear what value there is in answering it, as well as what kinds of data are being collected for future use. Future questionnaires of this kind would require expert involvement at early stages to encourage higher response rates and to craft the questions in ways that would be maximally of benefit to various stakeholders.

Collaborative process: It is clear that the collaborative process was a success given that the frequency and type of engagement was significant. Both scientist and artist met regularly, and directly each involved the other work that contributed to the output (e.g. both taking DNA tests, both working on the questionnaire, both discussing the presentation of material on the website). In addition, another indicator of collaborative success is that since the completion of the project, further collaborations are in place, along with continuing efforts to disseminate the website which was the artistic output of the collaboration. Generating a successful relationship across countries, across time zones, and via online media platforms is a challenge, and the fact that these potential barriers were surmounted is worth drawing attention.

Section 3: Insights, Conclusions, and Recommendations

Insights: THE LAB is an innovative pilot scheme for fostering collaborations between scientists and artists, as a result, there is no good precedent set for how to evaluate it. Therefore, the general insights that are reported on here are based on several objective and subjective outcomes that were collected throughout THE LAB activities. The ability to do this was the result of substantial planning in advance of THE LAB, which includes all the aforementioned materials and questionnaires (presented in the appendices).

Budget and Schedule of THE LAB: The ambitious nature of THE LAB meant that it was likely to exceed the timeline that it had set from sending out the call to scientists to the commissioning process. However, the delays were only by a matter of months. THE LAB was implemented during a period where all activities were impacted by Sar-Cov-2 (Covid-19 pandemic). While this presented significant challenges, such as the types of artistic outputs that could be produced, it offered opportunities as well, such as new ways of interacting online. Therefore, it is fair to say that Fuel was able to successfully implement a novel scheme without significant delays during a time of global instability. In addition, the forecasted budget was accurate, and all three projects were costed for roughly £3-4 K, which was the budget allocated for THE LAB.

Reach of THE LAB: Between 1st May – 1st June 2020, the call for proposals webpage, which was launched to attract scientists to submit their project proposal to take part in THE LAB, was viewed by over 450 website visitors (for full details see Appendix ii: THE LAB Recruitment analysis). Engagement via twitter reached over 30,000 impressions, and over 200 clicks in the same period. This resulted in 5 completed applications and 9 additional conversations between applicants and Fuel where it was clarified that the candidates did not have specialisms in the areas relevant to the call. It is worth noting that the number of applications was somewhat low, given the efforts spent in engaging the academic community. Nonetheless, there are positives to take away from these efforts. The attention that the call attracted was substantial and served as a good promotional vehicle for academics to interact with arts organisations, and vice versa (for full details see Appendix ii: THE LAB Recruitment analysis).

Timeline for project completion: The estimate of length of time each project would take to complete (~2 months) was considerably off target. Only one of the three projects is

complete, and that project took a total of ~10 months. There are likely several reasons for the significant deviation between the estimated time of the projections and reality. First, while the pandemic impacted several factors, it did not impact them consistently in the same way. The schedule for implementing THE LAB was only marginally impacted, and one project was at least completed, whereas others were not. This means that there are context specific factors related to the individual projects that need to be considered. Either it is the case that some projects were more complex and ambitious than others, or it is the case that some projects adhered more closely to the project plans (for example, see the form in Appendix i: Materials for THE LAB – F), or both. Furthermore, it may have been difficult to effectively project manage all three projects at once given the available resources that Fuel had.

Subjective assessment of THE LAB: A simple questionnaire was devised (see Appendix i: Materials for THE LAB – E) that asked for four types of details; 1) what success would look like, 2) what outcomes are expected, 3) what insights would be gained from THE LAB that wouldn't be gained otherwise, 4) the types of audiences that would hope to be reached. The questionnaire was given to Fuel team members involved directly with THE LAB, as well as artists and scientists that were commissioned, before, during and after the three commissioned projects. In this way it would be possible to compare across different stages, what was anticipated, and the extent to which expectations were met (or not, or exceeded) by artist, scientist, and Fuel. Unfortunately, only responses to the pre project questionnaires were completed by all three groups (Fuel team, artists, scientists). Nonetheless, the details that have been abstracted and presented in Table 1 reveal some interesting aspects of shared expectations, as well as where they differ.

Table 1. Abstracted extracts of responses to the Pre-project assessment[5]

	Success	Outcomes	Insights	Audience
FUEL Members	Positive feedback from public, artists and scientists	Inspire curiosity in scientific insights	Understanding ways of supporting the communication of scientific ideas	International
	Innovate communication of science to the public	Establish new relationships between scientists, artists and audiences	Using THE LAB to be effective to the public and scientists	New artists and academic audiences
	Innovate collaboration between science and the arts	Establish a way of evaluating THE LAB for future development	Evaluate the success of collaborations between scientists and artists from a public perspective	Under-served audiences
Artists	Make a connection between science and art	Discover and develop new forms of collaboration	Develop deeper understanding of scientific knowledge	Research communities
	Develop an artistic output that has a significant impact on the public	Disseminate key information through a creative and artistic process	Working in an unfamiliar field	Varying ranges of age groups
	Make new discoveries	Create new work that fosters new possibilities	Working with real world data, and scientific tools	Activists, practitioners
Scientists	Successful audience engagement (amount, and quality, wide range)	New funding sources for future research	New public engagement opportunities	International
	An effective collaboration that serves both scientific and artistic perspectives	New collaborative and research opportunities	New learning opportunities to gain different perspectives	Vulnerable groups, wide range of ages
	New learning experiences from exchanges that lead to future collaborations	Discover ways of incorporating creative processes in scientific research	Further explore ways of working with the arts	Practitioners, funding agencies

It is worth highlighting that the details presented in Table 1 are the author's analysis of the qualitative responses. There are multiple ways in which the data could have been analysed, which is why the raw data is presented at the end of this report, for others to analyse if they so choose.

From the abstracted details presented in Table 1, all three groups (Fuel team, artists, scientists) appeared to have common responses to the four types of questions. Though again, this is a matter of perspective based on the author's interpretation of the responses. However, the details are at least transparent for the reader to judge for themselves.

Taken together, the meta-theme of the responses to the pre-project assessment is one of ***perspective taking***. Before the projects had even been initiated, artists were considering

[5] The raw data from each respondent, is presented in Appendix III. Some of the responses have been redacted so as to keep the responses as anonymous as feasibly possible.

ways of gaining new understandings from science. In turn scientists were interested in incorporating creative and artistic experiences into their research approaches. Similarly, members of the Fuel team and artists were motivated to learn more about scientific concepts and to consider how to approach effective was of enabling the communication of scientific concepts. Cultivating an appreciation of an entirely new perspective (e.g. artistic), such that there is a motivation for it to be incorporated into one's own (e.g. scientist) ought to be classed as a significant achievement of THE LAB. It is clear that the function of THE LAB was a means of enabling an exchange of mutual appreciation of the specific expertise that the other did not possess.

One critical difference between scientists and artists/Fuel team members was that the scientists were invested in also thinking about future sources of funding for their work. This shouldn't come as a surprise given that scientists that hold academic positions are measured by success of attracting grant income, and part of that funding also including developing means of public engagement. Thus, THE LAB should be seen as a mechanism for supporting ways in which scientists, but academics more widely from other disciplines, can learn from artists as to how to inspire and engage the public in ways beyond those typically used by academics.

Conclusions: THE LAB is a piloted scheme set up to proceduralise collaborations between artist and scientists with the aim of producing artistic outputs that would be for the public good. To this end, it achieved what it set out to do. It did enable collaborations, one of which produced an output, and all three commissioned projects are ongoing as of the date of this report. The budget for the project was small, but the commitment to supporting the three projects is significant, especially given how resource intensive it can be. THE LAB is a replicable model for establishing collaborations between artists and scientists, that benefits both, and that can expand public understanding of topical scientific insights.

Recommendations:

1. For future LABs it might be worth scaling back the number of projects that are commissioned in order to make them more manageable and to ensure that they are completed on time. Alternatively, greater resources could be dedicated to support the project management of multiple projects at once over a time frame of 6 months rather than 2 months.
2. While there might be limitations in the types of metrics developed for evaluation of THE LAB, it is crucial that the same ones are used. Future iterations of THE LAB can utilise the same metrics to enable cross comparisons, but changing the metrics, not matter how limited they are, prohibits this from happening, and should be avoided.
3. It is important to ensure that the questionnaire is implemented pre, during and post projects, so that it is possible to track changes in perceptions of the project from different perspectives, as well as comparing across response by different groups (Fuel team members, artists, scientists) at different time points.
4. The opportunities for perspective taking, and expansion of approaches to one's own work, be that artistic or scientific is clearly a success of THE LAB and would not have been achieved without it. Greater efforts are needed to evidence this,

especially if a model like THE LAB could be replicated on a wider scale, and more substantially resourced.

Appendix i: Materials for THE LAB

A: Schedule and budget

w/c 13th April	- Academic Lead at QMUL to define research areas (including 3x sub themes) for public call out. - Fuel Development Producer to write up call out information for scientists. - All to develop list of partners to disseminate call out information. - All to refine project plan. - Marketing assets to be created for promotion.
w/c 20th April	- Call out goes live to public. - Further push to spread the word between partners. - Cornershop PR to profile project where possible.
w/c 25th May	- Application Deadline. - Fuel and Academic Lead at QMUL to assess applications for sub theme 1/3 and 2/3 and shortlist potential artist collaborators.
w/c 11th May	- Fuel and Academic Lead at QMUL to assess applications for sub theme 3/3 and shortlist potential artist collaborators. - Fuel and Academic Lead at QMUL to decide on final list of scientists and artists. - Fuel and Academic Lead at QMUL to curate potential collaborators lists per scientists: some may meet a few artists others we may pair with one artist we feel confident about.
w/c 18th May	- Fuel to notify selected scientists and artists. - Fuel to arrange virtual meetings for w/c 25th May. - Artists to read and watch relevant scientist pitches in advance of meetings. - Scientists to receive background on artists in advance of meetings.
w/c 25th May	- Scientists and Artists to meet throughout the week. - Fuel and Academic Lead at QMUL to conduct short evaluations with scientists to determine which partnerships have been successful and would like to proceed to developing a treatment.
w/c 1st June	- Successful scientist / artist partnerships to spend 1 day over 1 week developing a short treatment to pitch for commission opportunity.

w/c 8th June	- Fuel and Academic Lead at QMUL to select 2-3 ideas to commission and notify all applicants. - Fuel to meet with artists to develop project plan and recruit any additional team members (such as digital or access support).
w/c 15th June	- Fuel to follow up all participants with advice on developing new ideas independently. - Fuel to process invoices for all participants. - Fuel to contract all commissioned artists and scientists.
w/c 15th June – 20th July	- Fuel and Academic Lead at QMUL to check in weekly with partnerships to support development for delivery w/c 20th July. - Fuel and Academic Lead at QMUL to development delivery partners (broadcast, digital, community etc.) - Fuel and Cornershop PR to develop publicity strategy around launch of new projects. - Fuel to develop audience engagement and marketing plan for individual and across projects. - Fuel to process instalment 1 of 2 of commissioning fee for artists.
20th July – 31st July	- All projects to be shared with audiences.
w/c 3rd August	- Fuel and Academic Lead at QMUL to conduct evaluations with commissioned artists and scientists including discussions about future life. - Fuel to process final instalment of commissioning fee for artists and scientists.
w/c 10th August	- Fuel, Academic Lead at QMUL and stakeholders to evaluate The Lab process, outcomes and discuss future life.

Forecast Budget 1

Description	Sum	Total	Notes
Scientist Treatment Development Day	15 @ £220 per day	£3300	Not all scientists may find a partnership and this number may go down.
Artist Treatment Development Day	15 @ £220 per day	£3300	Not all artists may find a partnership and this number may go down.
Commission 1		£4000	We would aim to commission between 2-3 projects. I have suggested here one might require further support or act as a headline project or we
Commission 2		£3000	
Commission 3		£3000	

			could consider equal investment across strands.
PR		£1000	An option to raise profile of project
Digital contingency / licensing		£750	
Contingency @ 5%		£917.50	
		£19267.50	

Forecast Budget 2

Description	**Sum**	**Total**	**Notes**
Scientist Treatment Development Day	15 @ £150 per day	£2250	Not all scientists may find a partnership and this number may go down.
Artist Treatment Development Day	15 @ £150 per day	£2250	Not all artists may find a partnership and this number may go down.
Commission 1		£4000	We would aim to commission between 2-3 projects. I have suggested here one might require further support or act as a headline project or we could consider equal investment across strands.
Commission 2		£2000	
Commission 3		£2000	
PR		0	An option to raise profile of project
Digital contingency / licensing		£250	
Contingency @ 5%		637.50	
		£13387.50	

Appendix i: Materials for THE LAB

B: Advertising THE LAB

Fuel and Queen Mary University of London are seeking proposals from scientists whose research focuses on Global and Public Health to take part in a virtual residency with a curated pool of artists, resulting in 3 new creative projects that engages public in their research.

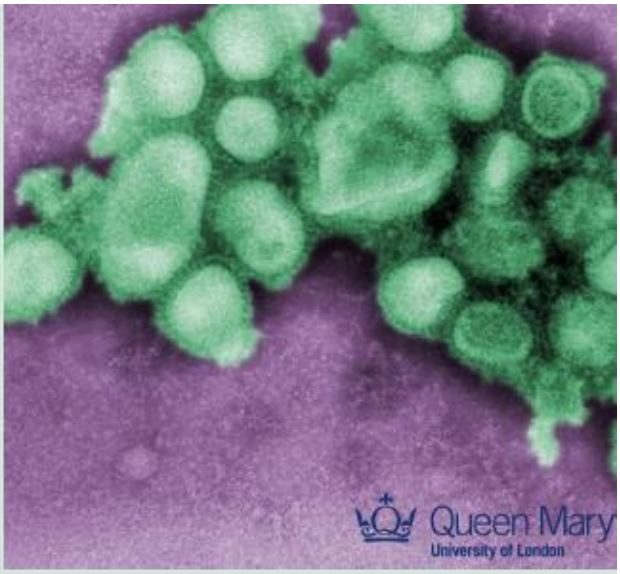
PROJECT SUMMARY

Leading arts producing company Fuel and Queen Mary University of London (QMUL) celebrate their ongoing collaborative partnership developing artistic projects inspired and informed by leading academic research by producing The Lab. Responding to the core agenda of Fuel's long-standing Sustaining Excellence partner and supporter, Wellcome Trust, all projects will discuss public and global health

The Lab invites researchers from UK and beyond to share their work and interests with project curators Fuel and Dr Magda Osman (QMUL). 10 scientists will have the opportunity to pitch ideas to a curated pool of (live/visual/digital/ audio) artists in a series of virtual think tanks.

Successful new partnerships will be offered £150 for one paid day to develop a treatment for a new artistic work to engage audiences digitally remotely. 3 projects will be offered a paid commissions by Fuel and QMUL who will provide bespoke producing support to ensure each project is delivered to a high standard to an engaged audience.

As a result of immediate cancellation of he creation and presentation of live performance projects internationally, The Lab aims to take advantage of the availability of extraordinary artists and cientists as well as providing opportunities to sustain creative work when it is needed most.



PROJECT TIMELINE

Recruitment
Application deadline: 1st June 2020
Successful applicants notified: 10th June 2020

Scientist and Artist Thinktanks
Virtual thinktank sessions: 22nd June - 26th June 2020
Proposal development: 29th June - 3 July 2020
Successful proposals notified: 8th July 2020

Development and Presentation of Commissioned Projects
Development of projects: 13th July – 28th August 2020
Delivery of projects: 31st August 2020

SCOPE OF RESEARCH

We are inviting scientists who work in the following three broad areas of research to submit a proposal that describes their work so that we can coordinate them with artists to develop a creative project to be shared with interested new audiences.

Global Health - with special emphasis on infectious diseases: this includes research that addresses infectious human disease and disorders of the human immune system through fundamental research; this can include work focused on defining critical biological/pathological parameters necessary for the prioritisation of preventative supportive and/or therapeutic interventions

Global Health - with special emphasis on implementation science: this includes research that addresses the challenges and possible solutions to the cost-effective and efficient implementation of evidence-based health interventions targeting infectious diseases in low and middle income countries (LMICs).

Public Health- with special emphasis regarding risk communication: this includes research that investigates effective approaches to promote acceptance, uptake, and adherence to public health measures for prevention and control of spread of infection diseases, and how best to effectively communicate the risks of primary and secondary impacts.

These calls do not specifically refer to COVID-19, in fact we have deliberately made the details broad enough so we encourage researchers to applying that have could include a research focus on a variety of infectious diseases (including Ebola, MERS, Zika, Nipah, and super bug strains (e.g. malaria superbug) associated with antimicrobrial resistance(AMR)).

ELIGIBILITY CRITERIA

- We are looking to meet scientists whose research responds to The Lab's identified research scope above.
- We encourage applications from Post Doctoral and PhD students as well as established researchers.
- Applicants must have flexible availability for proposed activity dates.
- We equally welcome scientists with and without experience in engaging public in their research.
- We encourage international applicants and will work to find artists who can align with languages spoken and suitable time zones to support a fruitful working collaboration.
- We will provide access support for scientists or artists who may require it which could include but not be limited to: support writing application or treatment, BSL interpreters, flexible working structure.
- Our call out process aims to capture the personalities and interests of the scientists as well as an understanding of their areas of research.
- Applicants are asked to fill in a short form as well as sending a video submission (subject to access requirements).
- We will support all collaborations with a dedicated producing team (project management, idea development and delivery support) and manage audience engagement.

Application deadline: Monday 1st June 2020

For more information and to apply: https://fueltheatre.com/thelabcallout/

If you have any questions or require support to submit your application, please contact development@fueltheatre.com

fuel · Queen Mary University of London · wellcome · Supported using public funding by ARTS COUNCIL ENGLAND

Appendix i: Materials for THE LAB

C: Project Proposal Form

The Lab Open Call Application form

Fuel and Queen Mary University London (QMUL) are seeking proposals from scientists whose research focuses on Global and Public Health to take part in a virtual residency with a curated pool of artists, resulting in 3 new creative projects that engages public in their research. Through this application process we hope to get a better understanding of each applicant's scope of research, their interests in public engagement and how this project might benefit their work.

Please answer all of the following questions. Please type your answers and use as many pages as you require, but do keep within the word count limits.

About You

Name: _____

Pronouns: _____

City / Country _____

Contact number: _____

Email: _____

About Your Research

We are interested in hearing from scientists whose research addresses one or more of the following areas:

Global Health – with special emphasis on infectious diseases: this includes research that addresses infectious human disease and disorders of the human immune system through fundamental research; this can include work focused on defining critical biological/pathological parameters necessary for the prioritisation of preventative, supportive and/or therapeutic interventions

Global Health – with special emphasis on implementation science: this includes research that addresses the challenges and possible solutions to the cost-effective and efficient implementation of evidence-based health interventions targeting infectious diseases in low and middle income countries (LMICs).

Public Health – with special emphasis regarding risk communication: this includes research that investigates effective approaches to promote acceptance, uptake, and adherence to public health measures for prevention and control of spread of infection diseases, and how best to effectively communicate the risks of primary and secondary impacts.

These calls do not specifically refer to COVID-19, in fact we have deliberately made the details broad enough so we encourage researchers to applying that have could include a research focus on a variety of infectious diseases (incl. Ebola, MERS, Zika, Nipah, and super bug strains (e.g. malaria superbug) associated with antimicrobrial resistance(AMR)).

Job Title:

Are you, or have you been, affiliated with an academic or cultural institute? *(100 words or less)*

Please describe your area of research *(350 words or less)*

Why is your research relevant to public now? *(350 words or less)*

Where applicable, please explain any previous experience or interest in engaging your work with public or artists. *(350 words or less)*

Please tell us why are you interested in The Lab and how this opportunity will support your professional development.

Your answer should be in the form of a short video of no more than 2 minutes. There's no need for any special effects or editing.

Please provide links to examples of documentation of your research

References

Please provide details of one referee we can contact. This should be someone who knows your work well and can tell us why they think you and your work would be a good fit with **The Lab.**

Appendix i: Materials for THE LAB

D: Criteria for evaluating submissions from Scientists

Themes for discussion per proposal: Members of the evaluation committee: Fuel team and Academic Lead at QMUL

Research
* Innovation
* Relevance – to the call
* Representation
* Affiliated institutions and universities

Public Engagement Potential
* Is there a clear target audience for the research engagement? Can we access this audience? Do these audiences engage with digital / virtual or remote platforms?
* To what extent could public engagement have an impact on real people?

Candidate Suitability
* Does the scientist demonstrate a strong desire to communicate their research? Will the scientist be open to explore new ways of working?
* Will taking part in The Lab be beneficial to the researcher's professional development and / or their area of research?

Score sheet: Enter details for comments and discussion

Research	Candidate 1	Candidate 2	Candidate 3	Candidate 4	Candidate 5
Innovation					
Relevance					
Clear objective					
Public Engagement					
Clear target audience					
Dependence on digital/virtual platforms					
Prior experience working with artists					
Candidate Suitability					
Motivated to communicate					
Open to possibilities					
Part of professional development					

Appendix i: Materials for THE LAB

E: The assessment questionnaire of THE LAB

The following 4 questions were presented to Scientists, Artists (each of whom were involved in an actual commissioned project) and FUEL members, and were to be presented before, during, and after the projects had been completed.

1) List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".

a)
b)
c)

2) List and rank order three potential outcomes that you want to achieve through the "the lab".

a)
b)
c)

3) List and rank order three aspects of "the lab" process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in "the lab".

a)
b)
c)

4) List and rank order audiences that you would hope to reach through the "the lab" that you would not have otherwise have had access to if you weren't involved in "the lab".

a)
b)
c)

Appendix i: Materials for THE LAB

F: Idea development form - with costings and project schedule

THE LAB

Queen Mary University of London

fuel

The Lab Phase: Idea Development

What's Next?

There are 5 project ideas being developed over the next 2 weeks which will be considered for 2-3 commission opportunities to be produced by Fuel and Queen Mary University of London this Autumn.

We expect each partnership to spend a day (approx. 7 hours) discussing how your research and creative practices can intersect to make a creative project that will engage audiences in new research ideas responding to infectious diseases.

To be considered for commissioning, your partnership will need to respond to the Project Outline and attend an evaluation meeting to discuss ideas together.

Project Outline

For each section you should spend no more than 200 words responding to each section, with the exception of the timeline for which you may respond with whatever details you consider are necessary)

Production

Audience

Research

Partners

List here any partners or contributors you have relationship with or you that we could help approach to promote to engage with this project

Budget

total:	

Production Timeline

Production Timeline:
weeks 1 - 2
weeks 3 - 4
weeks 5 - 6
weeks 7 - 8

Appendix ii: THE LAB Recruitment analysis

Overall Summary of analysis of recruitment to THE LAB

The Lab scientist recruitment call-out ran from 1st May to 1st June 2020. There were 5 **completed applications** and **9 additional engaged conversations** between applicants and Development Producer. The primary reason that interested candidates did not apply was due to the specificity of the research remit on infectious diseases.

The call out was page was viewed **638 times** by and **468 website visitors.** 17 website visitors returned to the call out page for a total of 240 times (this number will include Fuel and partner engagement with the website page).

The call out acted as a useful promotional tool to connect with new partners who are interested in The Lab and more widely in Fuel's role connecting art and science practice for public engagement. Live conversations include: Queen Mary University of London, Wellcome Trust, World Health Organisation, the Space, Royal Society, Rose Bruford College, Imperial College London, Watershed Bristol (Pervasive Media Studio) and further listed below.
Archive link: https://fueltheatre.com/thelabcallout/

Key Recruitment Learnings

As Fuel's relationships primarily sit with arts organisations, in order to reach scientists and students we conducted was quite a manual process: locating the most effective communicator in each department or university, set up a meeting or start and email thread to understand how opportunities are disseminated to their cohort.

Engagement also came from directly contacting individual researchers whose information we collated through Wellcome Trust's key research centres in infectious diseases across the UK.

Most universities speak exclusively with their students, however we were supported to be set up on JISCMail, a central public engagement opportunities page for scientists. Our call out was also disseminated via Wellcome Trust to their academics interested in public engagement opportunities.

Digital engagement analytics show that we had most success reaching people who had the organic link (i.e were sent via email directly) rather than finding the page through social media or advertising.

Applications

Total Number of Applications Received: 5
Institutions represented:
National Health Institute of Genomic Medicine (INMEGEN) in Mexico

Northumbria University's Department of Psychology
Bath Spa University
University College London's (UCL) Institute for Global Health
The School of Public Health and Family Medicine - University of Cape Town
Eight other academics contacted us but did not apply (the email exchanges can be found under Promo (academics) on development@fueltheatre.com) and were from the following institutions:

1. University of Cambridge: Public Health and Primary Care, UK
2. Cancer Metabolism at the University of Cambridge, UK.
3. University College London, UK
4. University of Nottingham, UK.
5. University of St. Andrews, UK.
6. University of Cambridge, UK.
7. University of Cambridge, UK.
8. Imperial College London, UK.

Digital Engagement Analysis

Online Engagement with our Website and Twitter posts:
On the 11.05.2020 our twitter post had: 8,576 impressions and 62 link clicks
On the 18.05.2020 our twitter had: 9,840 impressions and 76 link clicks
On the 01.06.2020 our twitter had: 12,088 impressions and 89 link clicks
Media Engagements: 17
Profile Clicks: 24
The total engagement: 322
On the 18.05.2020 our website's Call-Out was viewed 514 times; 223 were users who came direct (by typing URL) and 240 is the total number of direct sessions.
514 is the total number of people (users) who have accessed it at least once;
240 sessions correspond to the total number of times users have returned;
17 is the total number of users who have returned on a combined total of 240 sessions;
On the 01.06.2020, the last day for applications, the website post had **638 sessions and 468 new users.**

Engaging Organisations & Institutions

The Space
We submitted an application as part of The Space's Low Cost R&D grant scheme to cover the base fundraising target of £8000.The grant would support commissioning costs but also provide training and producing support to translate projects for digital spaces.
Action: Application results due 22nd June 2020
Queen Mary University of London
FUEL met with one of the Vice Principals of QMUL, who has offered support to broadcast or disseminate The Lab's projects but also help us make The Lab an empirical case study for how art / science collaborations are an inspired and effective professional development, public engagement opportunity and research enhancement method.
Wellcome & World Health Organisation

Fuel contacted WHO about our application but did not receive confirmation that they disseminated the call out to their networks. Wellcome sent out The Lab call out via their public engagement opportunity network.

Rose Bruford College

Rose Bruford College has launched a programme #NoMoreEmptySpace that will connect researchers in infectious diseases and artists to explore how performing in the UK might be safe and possible again during COVID-19.

Science Gallery Melbourne

Science Gallery Melbourne have put a call out for international public engagement artist collaborations. Science Gallery Melbourne are on the hunt for mass inspiration from our global disciplinary community of friends to contribute proposals for their 2021 exhibition SWARM. Art/science proposals can be a new or existing artwork, performance, workshop, digital intervention, research project, or other activity based on the concept SWARM (the power and psychology of the collective).

Imperial College Public Engagement Team, Watershed Bristol (Pervasive Media Studio) and Future Everything would have requested follow up meetings about future partnerships / introductions to Fuel.

32 Cultural and Scientific Organisations were contacted:

1. Future Fest (NESTA)
2. Royal Society
3. Pervasive Media Studio (WATERSHED, Bristol)
4. Watershed
5. Future Everything (working on digital culture and participatory experiences)
6. Manchester International Science Festival/ Science Museum
7. Abandon Normal Devices Festival
8. South West Creative Technology Network
9. Body Data Space
10. Barbican
11. Kaleider
12. NESTA
13. Unlimited
14. British Library
15. ArtsAdmin
16. LADA
17. Arts Catalyst
18. Ascus - Art & Science (Edinburgh)
19. Edinburgh Science Festival
20. LifeSpace Science Art Research Gallery (Scotland)
21. ArtsHub
22. Calouste Gulbenkian Foundation
23. ICA - Institute of contemporary arts
24. Chisenhale Gallery
25. Institute of International Visual Arts

26. British Science Association
27. Digital Cultures Research Centre
28. Bristol and Bath Creative R&D
29. UK Science Festival Network (connected to British Science Association)
30. Cancer Research UK
31. JISCMail
32. The Global Health Network
33. Wellcome Collection

From those, the following **12** confirmed shared the Call-Out with their wider network:

1. Future Fest
2. Royal Society
3. Pervasive Media Studio
4. Watershed
5. Future Everything
6. Barbican
7. Unlimited
8. ArtsAdmin
9. LADA
10. Chisenhale Gallery
11. The Global Network
12. JISCMail

126 Academics were individuals contacted. The contacted Academics are associated with the following **22** Universities:

1. Imperial College London
2. Bath Spa University
3. Oxford University
4. University of Southampton
5. University of Warwick
6. De Montfort University
7. University of St. Andrews
8. University of East Anglia
9. The Francis Crick Institute
10. London School of Hygiene and Tropical Medicine
11. Centre of Excellence in Infectious Diseases Research
12. Nottingham University: Centre for Health Care Associated Infections
13. University of Bristol
14. UCL
15. University of Utah, School of Medicine
16. University of Cambridge
17. Kingston University
18. St George's University of London
19. Liverpool University

20. George Institute
21. Edinburgh University
22. Birmingham University

The following Academics/Universities shared the Call-Out with their wider networks:

1. Bath Spa University, UK.
2. London School of Hygiene and Tropical Medicine, UK.
3. University of Utah, USA.
4. University of Cambridge, UK.

Fourteen academics from Fuel's Portfolio were contacted

Appendix iii: Responses to the 'pre' assessment questionnaire of THE LAB

Below are the responses to the questions from 3 scientists, 3 artists and 4 members of the Fuel team.

Objectives to be completed by A

1. List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".
    a. Engagement with "the lab" project (e.g., amount of participant interactions and positive experiences)
    b. Preservation of traditional/local knowledge (e.g., new information and/or understanding of plants and people relationships)
    c. Educational benefits (e.g., derived from feedback)

2. List and rank order three potential outcomes that you want to achieve through the "the lab".
    a. Research relationships with artists and other people outside of academia
    b. Preliminary data for a research project that could be developed further
    c. Discovery of new funding sources

3. List and rank order three aspects of "the lab" process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in "the lab".
    a. Use of new communication platforms
    b. New perspectives (from audience or collaborator feedback)
    c. New research ideas

4. List and rank order audiences that you would hope to reach through the "the lab" that you would not have otherwise have had access to if you weren't involved in "the lab".
    a. A range of people outside of academia, [redacted]
    b. Alternative funding agencies
    c. Academics in other fields outside of my area of research

Objectives to be completed by B

1. List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".
    a. Facilitating a productive collaboration between a scientist and an artist to address misinformation - a problem of global health importance
    b. Laying the foundation for scaling up this collaboration to reach wider and cross-cultural audiences globally in the future
    c. Catalysing a partnership that will result in shared expertise, knowledge, skills and interdisciplinary conversations that can be carried beyond the scope of this project.

2. List and rank order three potential outcomes that you want to achieve through the "the lab".

a. Co-developing a creative output that focuses [redacted]. Such a project has not been developed before and this is a rare opportunity to come up with a public health intervention that lends itself to evaluation.

b. Develop a plan for scaling up this project by way of making it more interactive and 'experiential'. There seem to be clear pathways for taking it forward, one of which would be to apply for further grants (for e.g. the AHRC) to expand the interactive aspect of this project by making it citizen scientific (through crowdsourcing) [redacted].

c. As part of the distribution of our creative output, engage with global health agencies [redacted].

3. List and rank order three aspects of "the lab" process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in "the lab".

a. The opportunity to interact with several artists

b. The arrangement to brainstorm with not only the matched artist but also his team members, such as his producer. These conversations have been extremely enriching from a learning perspective and resulted in several creative ideas being discussed.

c. The ability to think about a wider array of public engagement possibilities. Earlier, I was mainly focused on podcasts, but involvement in the lab has now expanded my horizons [redacted] performance lecturing and online gaming.

4. List and rank order audiences that you would hope to reach through the "the lab" that you would not have otherwise have had access to if you weren't involved in "the lab".

[redacted] groups whose existing vulnerabilities [redacted]

c. Older adults (55 years and over) [redacted]

Objectives to be completed by C

1. List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".

a. Having developed a proposal that satisfies both perspectives.
b. The website including both the artistic project along with the scientific information.
c. An online tool to disseminate important scientific information [redacted]

2. List and rank order three potential outcomes that you want to achieve through the "the lab".
   a. To participate as a creator of an artistic project
   b. To better understand the creative process from an artistic perspective.
   c. To find ways to incorporate a creative process in my own research interest.

3. List and rank order three aspects of “the lab” process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren’t involved in “the lab”.
    a. To work one by one with an artist to create a project that involved Art and Science.
    b. To further explore how Art could be incorporated in Science projects.
    c. To gain experience using online tools and to use my experience to generate scientific content using no-

4. List and rank order audiences that you would hope to reach through the “the lab” that you would not have otherwise have had access to if you weren’t involved in “the lab”.
    a. World wide audience
    b. Audience from Art field
    c. Audience with social concerns on related topics

Objectives to be completed by D

1. List and rank order three potential outcomes that you would consider as illustrations of the success of “the lab”.
    a. To find the strength and ethical foundations of this work between artists and scientists and be able to collaborate in a respectful and meaningful manner
    b. To make discoveries through the process that are both known and unknown
    [redacted]To witness the successes of this research [redacted]

2. List and rank order three potential outcomes that you want to achieve through the “the lab”.
    a. To create lasting and meaningful collaborations for future teams of scientists and artists.
    b. To feel a deeper connection to [redacted] knowledge as further shown by scientific research and development
    c. To create new work that stems from this collaboration, and to discover the new possibilities that lie ahead as a result of these collaborations and research.

3. List and rank order three aspects of “the lab” process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren’t involved in “the lab”.
    a. I am hoping to gain a deeper sense of understanding the elements of [redacted] scientific knowledge
    b. The work that our team creates gets understood by different age groups, and different mindsets
    c. The balance of natural medicine combined with the scientific aspect, showing the true balance, as both sides bring their results to a balanced understanding of the elements we are researching [redacted].

4. List and rank order audiences that you would hope to reach through the “the lab” that you would not have otherwise have had access to if you weren’t involved in “the lab”.
    a. [redacted] Youth interested in scientific research

b. Storytellers and [redacted] People [feeling positive about this work] and who are willing to expand on their knowledge sharing for further research

c. Academia who would otherwise not be interested in artists and scientists working together

Objectives to be completed by E

1. List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".

[redacted]a wide reach [redacted]

c. a clearly executed idea

2. List and rank order three potential outcomes that you want to achieve through the "the lab".

a. [redacted]

b. the chance to expand the project into something bigger - we feel that whilst this initial project will be able to have an impact as a stand alone set of work, the project has the potential to grow into a much larger and continuing work that seeks to engage with its online audience by becoming interactive in nature

c. a new form of collaboration

3. List and rank order three aspects of "the lab" process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in "the lab".

a. access to real world data and research

b. a chance to take part in covid and messaging strategies

c. a chance to work in an unfamiliar field

4. List and rank order audiences that you would hope to reach through the "the lab" that you would not have otherwise have had access to if you weren't involved in "the lab".

[redacted]age specific demographics - [redacted]

b. health, science and digital information research communities

c. followers and practitioners [redacted]

Objectives to be completed by F

1. List and rank order three potential outcomes that you would consider as illustrations of the success of "the lab".

a. Connection of research between science and art

b. Online work as a possibility of connection with different partners and people

c. Art as a tool for disseminate science information

2. List and rank order three potential outcomes that you want to achieve through the "the lab".

a. Create an artistic project with a scientific relation that at the same time it is related with my own artistic research
b. Be part of a professional project with new partners
c. Disseminate important and useful information by a creative and artistic process

3. List and rank order three aspects of “the lab” process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren’t involved in “the lab”.

a. [redacted]
b. New methodologies and production tools by working in an online work
c. To work on in the combination of science and art, the possibilities, connections and relationship between both areas

4. List and rank order audiences that you would hope to reach through the “the lab” that you would not have otherwise have had access to if you weren’t involved in “the lab”.

a. Online audiences - the possibility to work for the world wide audience
b. Scientific audiences, or audiences with interest in science information. Activists [redacted]

Objectives to be completed by G

1. List and rank order three potential outcomes that you would consider as illustrations of the success of ''the lab''
   a. Feedback from the public which demonstrates they have had a positive engagement with the project which has in some way changed the way they see/think/understand something about our world.
   b. Feedback from the scientists that they have learnt from the artist, the public and Fuel about their research in a way that will help them develop their thinking.
   c. Feedback from the artist that they have learnt from the scientist, the public and Fuel about their practice in a way that will help them develop in future.

2. List and rank order three potential outcomes that you want to achieve through ''the lab''
   a. More clarity and confidence about [redacted] skills and methodology in connecting scientists with artists and support them to create public engagement opportunities in a meaningful way.
   b. New relationships with scientists, artists and audiences.
   c. An evaluation which shows us the way to a new iteration of this idea.

3. List and rank order three aspects of ''the lab'' process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in ''the lab''
   a. Conversations with Associate Scientist about how we can shape this way of working to be effective for public and for scientists.
   b. Audience/public feedback around their engagement in the scientific research through the artistic project.
   c. Conversations with the scientists which enable better understanding of the aims of their research in terms of public engagement.

4. List and rank order audiences you have to reach through ''the lab'' that you would not have otherwise have had access to if you weren't involved in ''the lab''
    a. Not sure yet! I hope this will include international audiences, under-served audiences, and audiences who might not otherwise engage with the research (in reverse order).

Objectives to be completed by H

1. List and rank order three potential outcomes that you would consider as illustrations of the success of ''the lab''
    a. To become a comprehensive and successful commissioning platform for scientists who wish to communicate their ideas to wider audiences / general public;
    b. To develop projects that are provocative and discuss key contemporary topics that the general public wishes to engage with and learn more about;
    c. To successfully partner artists and scientists that can communicate - in an innovative fashion - key scientific research

2. List and rank order three potential outcomes that you want to achieve through ''the lab''
    a. To invite audiences to be more curious about key scientific research;
    b. For scientists to look at artists as potential collaborators when communicating their research with the public;
    c. For educational institutions to promote the marrying of art and science as a way of introducing key scientific research to their students

3. List and rank order three aspects of ''the lab'' process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in ''the lab''
    a. Understanding in what ways we can best support scientists communicating their ideas (what are the most important elements of their work they'd find useful to share through an artistic project)?;
    b. Understand how to facilitate conversations between scientists and artists where the scientific research is at the chore of the project;
    c. reflect through the various projects evaluations on how these collaborations can be successful from the audience point of view

4. List and rank order audiences you have to reach through ''the lab'' that you would not have otherwise have had access to if you weren't involved in ''the lab''
    [redacted]

Objectives to be completed by I

1. List and rank order three potential outcomes that you would consider as illustrations of the success of ''the lab''
    a. [redacted] diverse selection of artists, scientists and ideas, offering us a wide pool of information to learn from.

   b. Clear evaluation material to enable Fuel to communicate and make a case for support for future iterations of The Lab.
   c. Projects successfully communicate important and timely science ideas to the general public.

2. List and rank order three potential outcomes that you want to achieve through ''the lab''
   a. experiment and understand how arts / science projects can have impact through empathy and education.
   b. [redacted]
      build new partnerships and audiences with universities and science / humanities organisations

3. List and rank order three aspects of ''the lab'' process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in ''the lab''
   a. collaborate with a science advisor to structure, deliver and evaluation the creative process as well as the projects.
   b. learn how to communicate, encourage and support scientists as lead artists.
      develop remote working skills

4. List and rank order audiences you have to reach through ''the lab'' that you would not have otherwise have had access to if you weren't involved in ''the lab''
   a. highlight leading science ideas
   b. meet new artists and artistic outputs
   c. inspire audiences and artists to connect with science and research

Objectives to be completed by J

1. List and rank order three potential outcomes that you would consider as illustrations of the success of ''the lab''
   a. We develop our understanding of collaborative practice between artists and scientists, and learn how to facilitate work which is impactful
   b. We introduce audiences to new ideas, practices and ways of thinking
   c. Artists and scientists develop their own practice, particularly in terms of communication of ideas

2. List and rank order three potential outcomes that you want to achieve through ''the lab''
   a. As above

3. List and rank order three aspects of ''the lab'' process that you would consider as illustrations where you hope you would gain insights that you would not have otherwise have had if you weren't involved in ''the lab''
   a. Developing a shared cross-sector vocabulary
   b. How to engage non-theatre audiences
   c. Presenting work that feels equally representative of an artist and scientist

4. List and rank order audiences you have to reach through ''the lab'' that you would not have otherwise have had access to if you weren't involved in ''the lab''
    a. General public with an interest in science
    b. Academics - science