Invincible: Immersive Science-theatre enthralls audiences in Bristol, UK

By David Owen*

'Invincible' was a participatory theatre production produced by Kilter in partnership with researchers from University of Bristol SynBio and with support from the Public Engagement Team at University of Bristol.

Three generations, three perspectives

Set in a family house in 2047, each performance was opened up to audiences of no more than twenty, therefore inviting participants right into the heart play. We reached 344 audience members including 84 young people aged 13-14 studying Science. The storyline for Invincible, focuses on three generations of women within the same family. The grandmother, a professor Lillian who pioneered a synthetic biology treatment for people with mental health issues, the mother, a journalist Kate who writes frequently on the risks of Synthetic Biology as a 'sticking plaster' for the problems face by human-kind, and daughter, Jasmine who at the age of 12 was given the treatment with her grandmother's consent but at 15 was considering having it removed. Throughout the performance audiences were invited to express their views on Synthetic Biology its risks, and applications through the use of voting cards. These views were captured by real scientists dressed in white coats, in a silent role throughout the performance. At the close of the performance after a climatic final scene, cast, crew, scientists and audience members were invited to take part in a Q&A discussion in which potential applications of the science and potential risks were frequently discussed.

Triggering curiosity and reflection

We are still in the process of completing the evaluation. Early indications are very positive for both researchers and the public audiences taking part. The findings that have emerged have shown that:

- It generated big questions for the audiences about the applications of science and the challenges of considering 'pros' and 'cons' as well as anticipating off-target consequences.

- It raised questions important questions about what it means to be human.
- Many felt it made them curious to know more about synthetic biology and its applications, several commented that it had made them reflect on their views on the science, though these views moved in different and complex directions.

Mutual learning

Some example quotations that we have collected:

> *"I'm glad that researchers are sufficiently aware that what they are working towards could have serious ethical issues and societal consequences, so they are up for asking for public input on it".*
>
> Public Participant

> *"It was a really excellent show - interesting, thought-provoking and enjoyable to watch. I loved the intimacy of the space and the interplay of the recording and questions with the live scenes"*
>
> Public Participant

> *"One of the most useful aspects of the project was hearing opinions from a broad range of people - and different audiences to those we might normally reach with more traditional public engagement activities. This is always going to be key to collating representative opinions that usefully inform our research."*
>
> Researcher feedback

A video that tells the story of the project is available for those who wish to reflect on human health applications in synthetic biology and different perspectives in the class room or elsewhere. To find out more about the project and inquiries about the video please contact David Owen on David.Owen@bristol.ac.uk

---

[*] *David Owen has over ten years' experience of public engagement and culture change within Higher Education and is a member of the Public Engagement team at the University of Bristol which supports and promotes engagement beyond academia.*