

and practice of TS. Ultimately, T-SPARC seeks to advance broader goals of reducing longstanding challenges in the translational research process and improving health outcomes.

<sup>†</sup>The abstract has been updated since original publication. A notice detailing the change has also been published at doi: [10.1017/cts.2025.10093](https://doi.org/10.1017/cts.2025.10093)

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### Evaluation of the effect of probiotic *E. coli* Nissle 1917 on *Campylobacter jejuni* infections

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**OBJECTIVES/GOALS:** *Campylobacter* is a foodborne pathogen, causing gastroenteritis in humans. Untreated infections can cause colorectal cancer. With rising antibiotic resistance, alternative therapies like *E. coli* Nissle 1917 (EcN) are urgently needed to control infections in humans. Our study aims to evaluate the effect of EcN supernatant on *C. jejuni* in vitro. **METHODS/STUDY POPULATION:** The efficacy of EcN CFS on the growth of *C. jejuni* was evaluated in LB and minimal media (M63) using agar-well diffusion assay. We also evaluated the impact of these supernatants on the biofilm formation and pre-formed biofilms, as well as on the adhesion, invasion, and survival of *C. jejuni* in human colorectal adenocarcinoma cells. Additionally, we examined the effects of EcN CFS on the expression of genes associated with virulence factors, biofilm production, and quorum sensing of *C. jejuni* using real-time polymerase chain reaction. Each of the experiments was repeated at least twice, and the results were evaluated using two-way analysis of variance. **RESULTS/ANTICIPATED RESULTS:** Our results showed that EcN supernatants grown in both LB and M63 media exhibited a high zone of growth inhibition of *Campylobacter* in agar media. The EcN CFS significantly inhibited *C. jejuni* growth when co-cultured in liquid media. The supernatants also demonstrated a significant reduction of pre-formed biofilms by up to 82% and inhibited biofilm formation by 75%. Pretreatment of HT-29 MTX human intestinal cells with EcN supernatants led to a significant (p < 0.05) reduction in biofilm formation. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Our study demonstrates that *E. coli* Nissle 1917 cell-free supernatant significantly inhibits *C. jejuni* growth and virulence. This suggests that EcN-derived bioactive compounds could be promising antibiotic alternatives to combat *C. jejuni* infections. This study will bridge the gap between basic and translational research.

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### An environmental scan of translational science storytelling in a Clinical Translational Science Award Hub

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**OBJECTIVES/GOALS:** This study illuminates the efforts of a Clinical and Translational Science Award (CTSA) Hub to share stories of its aspirations, challenges, successes, opportunities, and impact when pursuing its complex goals, and how storytelling contributes to the narrative of the translational science work (via storytelling strategies, products, and benefits). **METHODS/STUDY POPULATION:** We utilized an environmental scan of a CTSA Hub (University of Minnesota Clinical and Translational Science Institute (CTSI)), including case study vignettes of its storytelling practices and products. We triangulated data from diverse data sources: grant applications, reports, and publications; public stories/news related to CTSI activities and impact; scientific publications; organizational/policy documents; and interviews with CTSI stakeholders featured in published sources. **RESULTS/ANTICIPATED RESULTS:** TS storytelling uses and strategies include communicating the essence of research translation, promoting program utilization, engaging community, reporting to stakeholders, and evaluating for accountability, learning, and improvement. Storytelling challenges include complexity of translation; balancing the scientific rigor with an engaging narrative; identifying appropriate stories that resonate with diverse stakeholders and are at an appropriate level of maturity; and building capacity using storytelling. Facilitators include supportive infrastructure to integrate stories; leadership endorsement of storytelling as a valuable strategy; capable cross-functional teams of communicators, administrators, and researchers to facilitate the integration of data into storytelling. **DISCUSSION/SIGNIFICANCE OF IMPACT:** The environmental scan provides evidence and lessons learned on leveraging storytelling as a useful tool for communicating CTS goals, actions, and findings, engaging stakeholders, building a narrative around scientific discoveries, evaluating and improving programs, and addressing health disparities in translational science.

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### Optimizing the transition of cancer survivorship care from oncologists to primary care providers (PCP)

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**OBJECTIVES/GOALS:** Aims are to identify the gaps and discrepancies between cancer care teams at Princess Margaret (PM) and primary care providers (PCPs). To ensure the transition from hospital care at PM into the community integrates the expressed needs of PCPs and cancer specialists. To ensure PCPs have the necessary resources to provide high-quality care to patients. **METHODS/STUDY POPULATION:** Phase 1 is the preparation phase, which consists of searching the literature and conducting contextual inquiry with experts in relevant fields, such as cancer survivorship and primary care. This phase is crucial to the planning of this project as the information gathered will be used to define the problem space and outline the scope of the project. Next (phases 2 and 3) we aim to create and distribute surveys to PCPs to gather data on current protocols and resources. We plan to distribute this survey by emailing PCPs and accessing PCP networks. Upon completion of the survey, we will review the data and assess which areas need further investigation. Then, we will create an interview guide keeping in mind the areas that need to be supplemented and aiming to validate the need. **RESULTS/ANTICIPATED RESULTS:** A resource that presents