

## **TYA Cancer Beacon Project**

**Project lead and organisation** - Tim Bonnici (UCLH), Ben Carpenter (UCLH), Lisa-Marie McMonagle (UCLH)

**Partner organisation(s) involved** - UCLH/NTPN TYA Cancer ODN/Inclusion Barnet

**Funding requested (£)** - £237,742

**Proposed start and end dates** - October 2026 – September 2028

### **Summary**

This bid proposes the TYA Cancer Beacon Project, a digitally enabled model of care for teenagers and young adults (TYA) with cancer, centred on an NHS-owned, AI-powered chatbot. It addresses persistent challenges in TYA care, including disengagement with traditional services, inconsistent pathways, and poorer outcomes compared to other age groups. Current models lack accessible, personalised, real-time information for patients and clinicians, limiting self-advocacy and increasing pressure on clinical teams.

The project will develop and deploy an AI-enabled chatbot that provides tailored, trusted information to patients, helping them understand their diagnosis, navigate care, and access support. It will also assist clinicians by offering guidance on TYA-specific pathways and managing routine queries, reducing workload. Alongside this, the programme will introduce digital case-finding to improve identification of TYA patients across NCL, and a community engagement programme to raise awareness among young people and professionals.

TYA services will serve as a testbed to evaluate feasibility and impact, with the aim of creating a scalable, system-wide solution applicable to other tumour groups.

Expected benefits include improved patient experience, better access to care, reduced inequalities, and increased service efficiency.

**NCLCA Big Ideas Fund – Expression of Interest**

*Submit by 25 June 2026. Only NCLCA colleagues may submit.*

Questions marked with an asterisk indicate additional guidance on page 2 of this document.

Section 1 – Project Details			
Proposal title	TYA Cancer Beacon Project	Project lead and organisation	Tim Bonnici (UCLH) Ben Carpenter (UCLH) Lisa-Marie McMonagle (UCLH)
Partner organisation(s) involved	UCLH/NTPN TYA Cancer ODN/Inclusion Barnet	Funding requested (£)*	£237,742.00
Proposed start and end dates*	October 2026 – September 2028		
Section 2 – The Idea			
1. What is the challenge you are seeking to address?*	<p>Our idea is simple, but radical: <b>to use TYA services as a testbed for a new, digitally enabled model of cancer care, centred on an NHS-owned, AI-powered chatbot that supports both patients and clinicians.</b></p> <p>Care pathways for teenagers and young adults (TYA) should be designed <i>with them, for them</i> and built from the outset to harness digital tools and AI. There is currently no trusted, NHS-owned solution that provides personalised, real-time information at scale while supporting clinicians to manage demand, representing a significant gap in care delivery.</p> <p>TYA patients are navigating a unique transition to independence, yet traditional, largely analogue services lead to disengagement and poorer outcomes. While cancer outcomes have improved in other groups, progress for TYA patients has lagged. Without services that young people can meaningfully engage with, this gap will persist. Across NCL, limited and inconsistent TYA pathways present an opportunity to leapfrog legacy models and build digital-first pathways, with an AI-powered chatbot at their core. This would enable patients to access trusted, tailored information, better navigate their care, and strengthen self-advocacy, while reducing avoidable demand on CNS and clinical teams.</p> <p>This approach supports a more scalable, distributed workforce model that can meet future demand. By testing it within TYA services, we will generate proof of concept for a scalable, NHS-owned digital infrastructure, with potential to extend across tumour sites and underpin wider adoption and commercialisation.</p>		
2. What is your proposed project and – at a high level – how would it be delivered?*	<p>We will address key system-level barriers that prevent TYA patients from receiving timely and appropriate care:</p> <ol style="list-style-type: none"> <li>1. No accurate, system-wide view of TYA cancer patients across NCL or their progress through the pathway</li> <li>2. Limited public and clinician awareness of TYA cancer presentation, treatments, and referral pathways</li> <li>3. Patients are not consistently informed about the medical and psychosocial care they should receive, limiting self-advocacy and engagement</li> </ol> <p><b>Our response:</b></p> <p>Development and deployment of an NHS-owned, AI-enabled chatbot (building on the <i>Ask The Cancer Centre</i> product- funded through the Alliance in 2024/25- which has evolved into a fully developed, secure, AI-powered, patient-facing interface. The platform enables patients to submit free-text questions and receive responses generated by a large language model, grounded in a locally curated clinical knowledge base) to:</p> <ol style="list-style-type: none"> <li>1. Provide patients with personalised, trusted information about their diagnosis, treatment, and support</li> <li>2. Support navigation of care and improve self-advocacy</li> <li>3. Assist clinicians with TYA-specific guidance, referral pathways, and decision-making</li> </ol>		

	<p>4. Safely handle routine queries, reducing avoidable demand on CNS teams and enabling a more distributed workforce model</p> <p>Critically, this project will use TYA services as a testbed for this chatbot-enabled model of care. We will evaluate its feasibility, acceptability, and impact when embedded within real clinical pathways. The intention is to develop a solution that is not TYA-specific, but scalable across tumour sites and patient groups.</p> <p>In addition, we will develop:</p> <ol style="list-style-type: none"> <li>1. A digital TYA case-finding service to identify patients across NCL and support timely entry into the pathway.</li> <li>2. A digital community-centred engagement programme, designed for sustainability, to improve awareness of TYA cancers among young people, their families, and clinicians.</li> </ol> <p><b>The project will be delivered through a collaboration between three teams:</b></p> <ul style="list-style-type: none"> <li>• The NCL TYA Network Leads – Ben Carpenter and Lisa-Marie Monagle</li> <li>• The UCLH Cognitive Design Engineering Team (led by Tim Bonnici), which has delivered ATCC/AI Surgery School</li> <li>• Inclusion Barnet – a user-led charity with a TYA co-design programme</li> </ul> <p>The work will be delivered through three coordinated workstreams, aligned by a Band 8 CNS Innovator, who will be trained in participatory design, inclusive engagement, digital innovation/AI, and service improvement. This role will be critical in ensuring that the chatbot model is co-designed, clinically safe, and scalable, with a clear pathway to wider adoption and future development.</p>
<b>Section 3 – Impact &amp; Strategic Alignment</b>	
<p><b>3. Which <a href="#">NCL strategic objectives</a> and/or National Cancer Plan ambitions does your project align with?</b></p>	<p><b>NCL Strategic Objectives:</b> SO2b: Consistently improve quality of life for all cancer patients. SO3b: Reduce variation in clinical practice across the whole pathway. SO4a: Continually reduce inequalities across the whole cancer pathway until services are on par across our population.</p> <p><b>The National Cancer Plan (2026)</b> dedicated a whole chapter to recognising the distinct needs of TYA services and identified several key priority areas; earlier diagnosis and faster pathways, access to genomics, innovation and clinical trials, specialist age-appropriate care and experience, reducing fragmentation and improving transitions, and holistic, lifelong, and personalised care.</p>
<p><b>4. What impact do you expect the project to have on NCL cancer outcomes and/or patient experience?</b></p>	<ul style="list-style-type: none"> <li>• <b>Proof of concept for an NHS-owned, AI-enabled chatbot embedded within clinical pathways</b>, demonstrating how queries can be safely managed at scale while freeing up CNS capacity</li> <li>• <b>A scalable, future-ready model of care</b> demonstrating how digitally enabled, co-designed pathways can be extended across tumour sites and patient groups</li> <li>• Real-time visibility of the TYA population across NCL</li> <li>• Improved staff awareness and capability, supported by access to consistent trusted information</li> <li>• More timely access to specialist care, leading to improved clinical outcomes</li> <li>• Increased patient experience through access to personalised, trusted information, reducing loss to follow-up</li> </ul>
<b>Section 4 – Resources</b>	
<p><b>5. What do you see as the likelihood of attracting external funding?</b></p>	<p>We believe this project has strong potential to attract external funding, particularly due to its focus on developing an NHS-owned, trusted AI chatbot embedded within care pathways. Using TYA as an initial test case will generate proof of concept, with external funding and partnerships critical to further developing the chatbot beyond this pilot and establishing a clear pathway to wider rollout and commercialisation.</p>
<p><b>6. High-level indication of how the budget would</b></p>	<p>Funding would primarily support; Band 8a TYA innovation fellowship (1.0 WTE for 18 months) to the sum of £127,492, digital/AI development to the sum of £80,250.00, and</p>

<b>be used*</b>	engagement activities to the sum of £30,000.00.
<b>Section 5 – Anything Else</b>	
<b>7. Is there anything else you would like to flag?</b>	The ambition is to develop a scalable TYA model that could be adopted across other Cancer Alliances. We have engaged with the medical directors at UCLH, Tim Jaggard (CFO/Deputy CEO) and academics at UCL, UCL Business and the Commercial Team at the Health Innovation Network. We have strong links with charity partners as well, notably the Teenage Cancer Trust and the Children and Young People’s Cancer Association.

## **Additional Guidance on Completing this EOI**

### General

- All EOIs must not exceed 2 pages.
- Please submit to [uclh.nclcanceralliance@nhs.net](mailto:uclh.nclcanceralliance@nhs.net) by 25<sup>th</sup> June 2026.
- Only NCLCA colleagues may submit.

### Section 1 – Project Details

- Our current expectation is that we will fund a small number of projects from a total funding pot of ~£600k.
- Proposed end date for the project must be no later than March 2029.

### Section 2 – The Idea

- Question 1 - Describe the problem or unmet need. Include relevant data or evidence where possible.

### Section 4 – Resources

- Question 6 - e.g., staffing, clinical time, technology, evaluation, overheads. Precise costings are not required at EOI stage.