



2021-2026

SOUTHAMPTON EMERGING THERAPIES AND TECHNOLOGIES (SETT) CENTRE REPORT

Foreword

“

Research-active teaching hospitals deliver better outcomes for patients, and five years ago UHS made a deliberate investment in SETT to strengthen its research and innovation capability. Through its work across three key priority areas, SETT has helped build capability, generate new approaches and create opportunities that will influence the future delivery of patient care. Reflecting on the past five years, I am immensely proud of the commitment and achievements of everyone involved, and excited about the opportunities that lie ahead as SETT continues to grow and evolve.

”

Prof Chris Kipps - SETT Centre Director



Research quality drives long-term patient outcomes at a university teaching hospital. Our focuses are:

Emerging Therapies

Build and expand ATIMP capability- gene and cell therapies tightly integrated with Clinical Research Facility & Pharmacy

MedTech

One front door for medtech, software and digital health linking clinical inventors industry, regulators and regional ecosystem.

Data and AI

Secure infrastructure, pipelines and analytics making UHS data ready for research, improvement and innovation.

Building **SETT** 2021 - 2026

Y1



DISCOVERY

- Establishing the centre
- Scoping the workstreams
- Mapping pathways, Recruiting posts, Stakeholder engagement across UHS and Wessex

TEST BED

- Infrastructure and process in place:
- Pharmacy Advanced Therapy Unit (PATU) build
- The Secure Data Environment (SDE) technical architecture
- The streamlined MedTech pathway
- First cohort of supported studies

Y2



Y3



SCALING

- From proof to volume
- Increasing studies
- Formalising governance
- Joining national networks
- Securing the Wessex SDE award

DELIVERY AT SCALE

- Recognised national centre
- Hosting national conferences
- Leading regional bids
- Running first-in-UK studies
- Embedding cross-workstream working

Y4



Y5

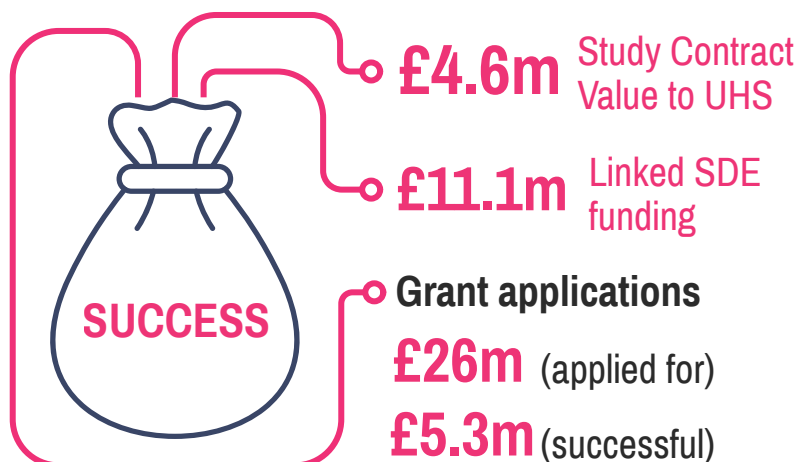


FUTURE SUSTAINABILITY

- Establishing SETT Board
- Defining the funding and operating model for the next phase
- Positioning SETT within the wider Wessex and national infrastructure

SETT in numbers

WORKING TOGETHER



Stakeholders...

NIHR
Biomedical Research Centre

ATTC
Advanced Therapy Treatment Centres

Wessex
SECURE DATA ENVIRONMENT

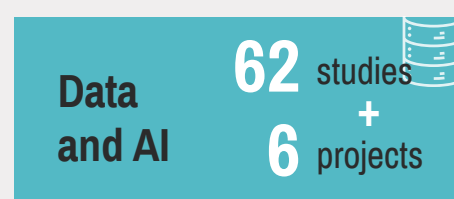
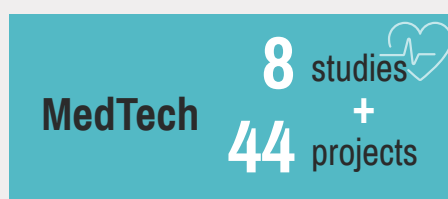
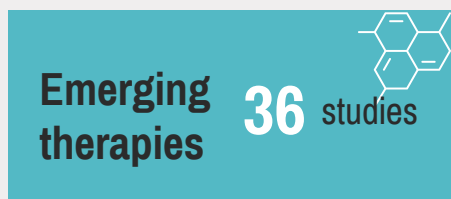
University of Southampton

NIHR
Applied Research Collaboration

Wessex Health Partners

ALWAYS IMPROVING

106 studies and 50 projects spanning 41 disease areas



Promoting UHS research culture

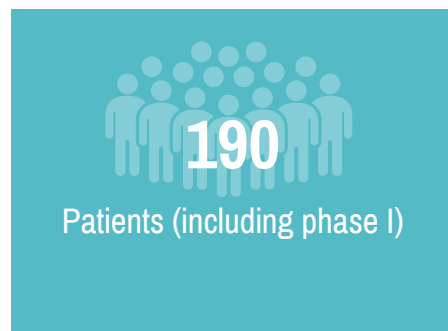
- UHS Patient Forum Emerging Therapies, June 2023
- UKCRF emerging therapies, July 2025
- MedTech Human Factors conference, June 2025
- SETT hosted national HealthTech Series Event, January 2026
- SETT/SDE/R&D Data & AI, National R&D Forum, May 2025
- SDE National events Annual presentations

PATIENT FIRST - recruitment

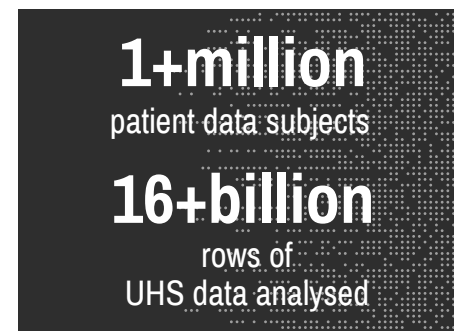
Emerging therapies



MedTech



Data and AI



Research reputation

SETT hosted

- 2 regional SETT conferences
- 2 national MedTech conferences
- 8 MedTech national webinars
- Web-based MedTech digital map

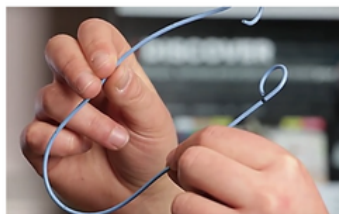
SETT supported research

- 93 academic papers
- 92 conferences and events
- Significant national news and media coverage



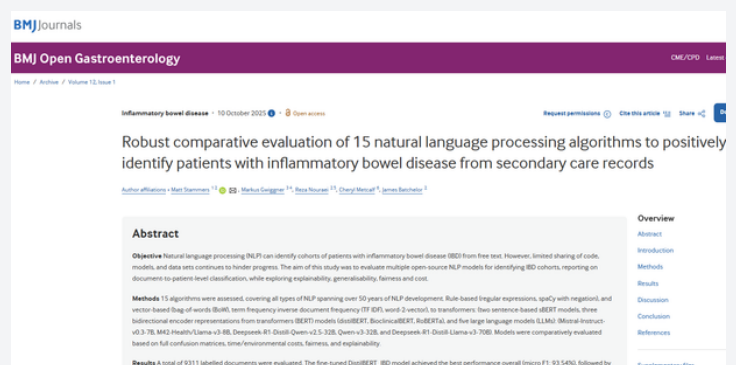
Using engineering to advance healthcare: First-in-human trial aims to improve the lives of patients with urinary stents

Published: 10 October 2025



A clinical trial is testing whether a new urinary stent, designed using novel engineering approaches, could improve the lives of cancer patients and other people who use stents.

Dr Ali Mosayyebi, a Biomedical Engineering Senior MedTech Fellow, and his team at the University of Southampton, have developed the new stent which it's hoped could



Global first in Southampton for surgical device study

Southampton surgeons are the first in the world to trial a new surgical device.

The trial is investigating a technology for use in keyhole surgery procedures.

Over 165 people entering surgery with the device will take part in the United Kingdom, United States and Canada.

A global trial

The device being tested is the HARMONIC™ 700.

It is an electrosurgical instrument designed to cut and seal blood vessels, as well as cut, grasp, and dissect tissue. It is already used for both open and keyhole surgery.

All patients taking part will have a medical condition requiring a general, gastrointestinal,



Emerging Therapies

Investment impact

> Streamlining delivery

- **35 Advanced Therapy Investigational Medicinal Product (ATIMP)** highly complex clinical research studies
- **48 patients** recruited enabling research as part of cutting-edge care
- Expanded across **13 disease areas**
- Generated **£5.6m** in research income
- **First ATIMP delivered in primary care**

> Building capacity and capability

- **New Pharmacy Advanced Therapy Unit (PATU)** facility
- **Commissioned** CAR T-cell therapy centre
- Dedicated **ATIMP nursing team**
- Secured an **HRA tissue licence** for supporting more cellular therapy studies.
- Dedicated **ATIMP Clinical Fellow**

> Collaborating

- Member of national **Advanced Therapy Treatment Centres (ATTC) network**
 - sharing capability and **learning at national level**, contributing to ATTC
 - subgroups including **Clinical Trial Acceleration** and the ATTC Data
 - active member of the DHSC **ATIMP data committee**

Signature stories

✓ HOPE-B - Functional cure for haemophilia B

- SETT-supported delivery of HOPE-B at UHS positioning the Trust at the leading edge of a step-change in haemophilia care
- Historically required twice-weekly infusions. HOPE-B is **first FDA-approved gene therapy replacing lifelong schedule with a single infusion**

✓ SCOPE and the CVLP recruitment pathway

- SCOPE (CAN1474), **first study at UHS** to dose a patient referred via **the Cancer Vaccines Launch Pad (CVLP)**
- CVLP presented by SETT as a national exemplar at the UKCRF conference in July 2025

✓ ZUMA-23 & BOWERY: CAR-T leadership

- ZUMA-23 - **highest-recruiting UK site**. Confirms UHS commissioning as a CAR T-cell therapy centre has translated into operational leadership
- BOWERY - first Janssen CAR-T study at UHS; **sponsor funded both arms (>£1m/patient SoC)**.

✓ RECODE home ATIMP dosing for cystic fibrosis

- **Phase 1 ATIMP delivered at home**
- One of the first instances of an Advanced Therapy product being supported in a **primary care setting** from UHS



MedTech

Investment impact

> Streamlining delivery

- **52** MedTech delivered studies and projects
- **Streamlined MedTech pathway** for innovators
 - Dedicated EOI front door
 - Single assessment pathway
 - Electronic engagement forms
 - Costing templates developed
 - Early phase safety committee
- **Web based navigation tool** for innovators - digital map

> Building capacity and capability

- MedTech Research Fellow qualified as **BSI Medical Device Professional**
- Appointment of new **MedTech lead**
- New **UHS Research Leaders Programme Fellow** working in SETT

> Collaborating

- Linking with national and international companies and innovators
- **Innovation Rounds** creating single pathway between Research, Commercial and Improvement teams
- Established relationship with Leeds HealthTech Research Centre (HRC) and **national NIHR HRC** programme
- Establishing **Regulatory Consultancy unit** with University of Southampton

Signature stories

✓ Versius

- UHS **first UK site** for Versius paediatric surgical robot
- Recruited 3 participants within 22 days of opening (reported on BBC News)
- **Improving patient care** - in a few years, from first-in-NHS site to operational service

✓ Smart-MG

- UHS **first UK site**, remote monitoring digital technology for myasthenia gravis
- **AI-based evaluation** of patient-reported and remotely captured data
- Recruiting well and demonstrates SETT's ability to support **complex multicentre digital health trials**

✓ Digital Map and MESH

- Mapping Excellence in Supporting HealthTech (MESH) created public map of Wessex regional innovation ecosystem
- Launched web based 'Tube Map' as visual signposting of innovation pathway in Wessex;
- Position SETT as a **contributor and convenor of the regional MedTech landscape**

✓ Innovation Rounds and i4i pipeline

- Innovation Rounds providing structured pathway for UHS clinicians to develop innovations
- SETT **conversion of clinical innovation and expertise into competitive bids** growing return on the original investment

Data & AI

Investment impact

> Streamlining delivery

- **68** research data studies and projects
- **High quality data** for research at scale
 - Developed powerful tools to access >80% of UHS clinical/operational data
 - **16+ billion rows** of data extracted for research analysis
- First fast feasibility model (FiFi) developed providing rapid response to commercial enquiries
- Automated validation and data model generation expediting SDE upload

> Building capacity and capability

- Established highly skilled **data analytics and engineering team**
- Developed **innovative data tools** streamlining clinic letter free text extraction, images and data discovery
- **National Hackathon winners**
- Built the **largest high-performance compute enabled cluster** inside any NHS Trust on the South Coast

> Collaborating

- HDRUK data informed analysis for **policy adoption** across emergency care, winter pressures and acute chest pain
- **13 NIHR Applied Research Collaboration (ARC) and Biomedical Research Centre (BRC)** supported research studies.
- Deployed **Federated Analytic Tools** Across the Country: Southampton -> Lancaster
- Key partner in **Wessex SDE** enabling excellent national position



Signature stories

✓ Wessex Secure Data Environment

- Secured **£13m** to establish **Wessex SDE** building directly on data infrastructure and capabilities created through SETT investment as **UHS - UoS partnership**
- Access to rich clinical and research datasets, underpinning **large-scale research**
- Strong patient and public involvement, developed **exemplar public-facing Data Access Committee**

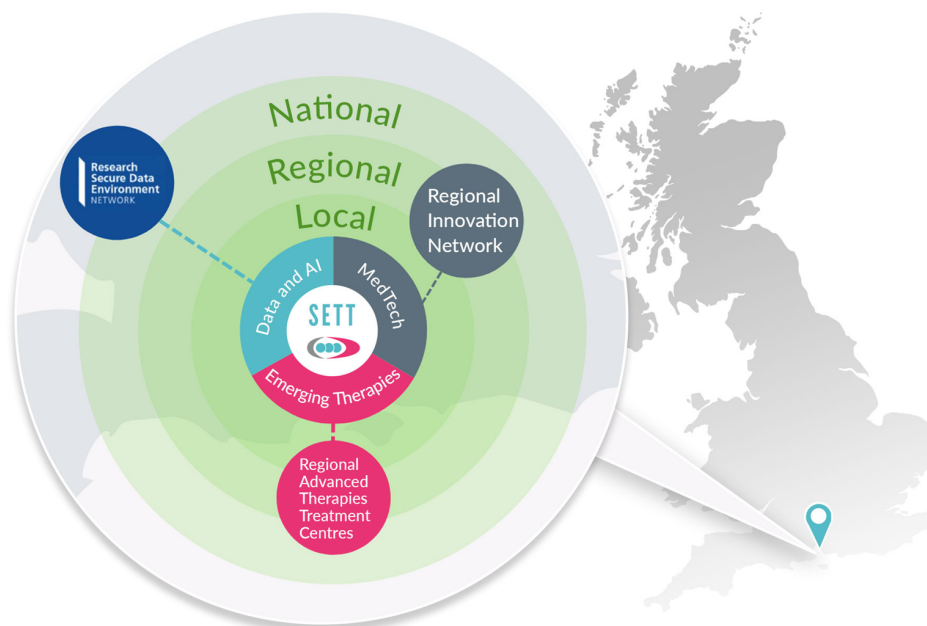
✓ wAIHA — first commercial real-world data study

- First UHS commercial Real-World Data study, focused on a rare disease (warm autoimmune haemolytic anaemia)
- **PI and data team collaboration** validating wAIHA data for **FDA submission**
- Informed **standard clinical care** for the **rare disease**
- First commercial project trialled within the R&D Florence research documentation software

✓ Automated cohort identification at scale

- **SMA** newborn screening champion study used SETT's automated data extraction tools
- CHARMER, a prescribing-behaviour study in older people, recruited 214 in its first week against an 800-target using the same approach
- Demonstration that automation can directly accelerate complex clinical study recruitment

Collaborator & Convenor



Local

- SETT working in **partnership** with Clinical Research Facility (CRF), BRC, ARC, R&D, Pharmacy, Commercial Team and Innovation Development Centre (IDC).
- **Cross-workstream** working routine - joint Data and ATIMP streamlining ATIMP paperwork, Data and SDE development of automated data pipelines, and joint MedTech and Clinical Trials Unit (CTU) work on Fill and Flush catheter



Regional

- SETT partnered with **UoS** (across multiple schools and centres including the School of Healthcare Enterprise and Innovation, and Health Technology Assessments Centre),
- SETT working with **Wessex Health Partners (WHP)** and **Wessex Health Innovation Network (HIN)** with joint mapping of MedTech opportunity and Tube Map development
- SETT support of the **Wessex SDE**, by design, a regional capability supported by WHP for use across Wessex.



National

- SETT active member of the **Midlands and Wales Advanced Therapy Treatment Centre** network (and multiple subgroups)
- A contributor to **HDRUK national projects**,
- A partner with the **Leeds Health Tech Research Centre** on Accelerated Surgical Care and on the MedTech Human Factors webinar series,
- A partner in the **national SDE network** moving to the Health Data Research Service, a member of the DHSC ATIMP data committee

Strategic priorities for the future



Emerging Therapies

As a clinical service, with national collaboration

- Stand up as a clinical service alongside research
- Broaden modalities radiopharmaceuticals, polypills, engineered products, T-cell engagers
- Collaboration nationally through ATTC



MedTech

Testing and growing UHS and regional innovation

- Develop focus on emerging areas, sensors, robotics, wearables, AI devices
- Innovation Rounds as an integrated innovation pathway
- Regulatory consultancy with UoS and commercial partners
- Position for National HealthTech Access Programme (NHAP) and the NIHR HealthTech Research Centres (HRC) bid (~2028)



Data and AI

As a Nationally leading data capability

- Build AI tools and laboratory embedded in both research and clinical care
- Enhance cohort-finding tools, real world data, multimodal data use and FiFlas sustainable offers
- Power the Wessex SDE and the national Health Data Research Service (HDRS)

THANK YOU



CONTACT INFORMATION

- research.uhs.nhs.uk/sett-centre
- SETT@uhs.nhs.uk

