

Birmingham Precision Medicine Centre (BPMC)

Innovative end-to-end clinical and academic partnership for the development of precision medicine

In a highly competitive marketplace, with reducing returns from R&D and average costs of bringing a drug to market of \$2bn, alongside business models such as 'pay-for-performance' pricing or post-licensing adoption and evaluation, developing effective products in an efficient, patient-focused way is a growing challenge. In particular, bringing together the right stakeholders, across function and expertise, represents one of the areas where research and development can falter or fail.

The Birmingham Precision Medicine Centre (BPMC) is a unique, state-of-the-art centre, providing access to the expertise of key opinion leaders on clinical trial design and biological sample investigation, designed to deliver a flexible and comprehensive service to address industry needs for translational medicine. The team offers a comprehensive trials diagnostic platform that can provide the highest levels of clinical quality management in regulatory-standard delivery and analysis. By integrating expertise, services and stakeholders, we can significantly shorten development and delivery timescales and hence reduce the cost of drug development.

BHP is a strategic alliance between the University of Birmingham (UoB), and two co-located NHS Foundation Trusts – University Hospitals Birmingham (UHB) and Birmingham Women's and Children's (BWC). This vibrant, integrated health sciences community forms one of the largest healthcare campuses in the UK, providing an unrivalled clinical-academic accelerator for translation.

Complete life-cycle academic overview

Whether co-designing trials, performing complex 'omics' analysis or developing companion diagnostic tools – BPMC is able to support, enable and facilitate every step of the drug development pipeline, with complete life-cycle academic overview and study design support to address specific needs and requests.

Focus areas include: cancer and haemato-oncology, immunology, inflammation, liver diseases and rare diseases across all ages.

Best-in-class expertise and location

BPMC represents a unique integration of clinical and scientific expertise, facilitated by Birmingham Health Partners (BHP).

The BPMC will soon be located in the new Birmingham Life Sciences Park at the heart

The combined expertise of the BPMC board of experts will provide a unique opportunity for colleagues from industry, biotech and SME to access, in a single unit, academic and clinical services often fragmented across several vendors, minimizing timing and costs associated with the clinical translation of drug development.

of the BHP campus, and is uniquely placed to engage world-class, clinical expertise across a range of pathologies and scientific disciplines with access to a large, stable and diverse patient population across the West Midlands region. Supported by a unique integrated data platform to interrogate clinical data and integrate analytic data generated, we use the latest analytical platforms to provide regulatory-standard reports.

Of the city, for the region, with reach beyond

UK and beyond →

Midlands region →

City →





**BEST-IN-CLASS
HEALTH DATA**

**WORLD-CLASS
FACILITIES**

EXPERTISE
COMPREHENSIVE TRIAL DESIGN/
DELIVERY CAPABILITIES
FROM PHASE I-III

**INTERNATIONAL
PARTNERSHIPS**
ALIGNMENT WITH CANCER IMMUNE
MONITORING AND ANALYSIS
CENTERS IN THE US

- + One of six national Health Data Research UK Sites – the only one with a core NHS partner
- + Access to curated electronic records and clinical data from a population affected by diverse pathologies and relative co-morbidities
- + Connected electronic healthcare records covering over 2 million patients, with full prescription and procedural data, for accelerated patient stratification and recruitment
- + Well-established facilities for deep immune phenotyping through Human Next Generation Sequencing facility (transcriptomics); Clinical Immunology Service and ITM Stratified Medicine Laboratory (immune phenotyping and molecular pathology); plus microbesNG (microbiomics) and Phenome Centre Birmingham (metabolomics)
- + One of three national Advanced Therapy Treatment Centres

- + One of the most significant clusters of clinical trials expertise in Europe, including UK's largest academic cancer Clinical Trials Unit and leadership of national paediatric cancer trials portfolio
- + Recognised global leaders in novel trial design and clinical trials networks accelerating trial delivery
- + Novel 'basket', 'umbrella' and platform trial methodologies, even in small patient cohorts

BPMC supporting tailored patient solutions

The Birmingham Precision Medical Centre offers:

- + Bespoke retrospective and prospective sample collection and release systems with cutting-edge molecular pathology
- + Comprehensive patient immune-phenotyping with access to CyTOF, digital imaging, metabolomics and transcriptomic analysis

- + Development of customised companion diagnostics
- + Comprehensive trial design and delivery using latest design methodologies at industry standard
- + Access to internationally-leading expertise in patient-reported outcomes
- + Evolving design and evaluation methodologies to support outcomes-based approvals

Contact

Richard Fox
Strategic Business Engagement Partner
University of Birmingham
Email: foxr@bham.ac.uk
Phone: 0121 371 8474
Mobile: 07964 908 616

Birmingham Life Sciences Park
www.birminghamhealthpartners.co.uk/blsp
Email: s.b.taylor@bham.ac.uk/
BLSP@contacts.bham.ac.uk
Twitter: @bhamlifescience