

# A spotlight on trainee research collaboratives in orthopaedics

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**T**rainee research collaboratives have emerged as a vital component of modern orthopaedic training, providing a structured approach to engaging clinicians in high-quality research while simultaneously enhancing education and professional development. Across networks, a consistent theme is the ability of trainee-led initiatives to utilise multicentre collaboration, increasing access to larger patient cohorts, and delivering studies with meaningful clinical impact. These collaboratives not only contribute to evidence-based practice and improved patient outcomes, but also cultivate essential skills in leadership, teamwork, and critical appraisal among trainees. Furthermore, by fostering mentorship, inclusivity, and early engagement – from medical students to junior doctors – they create a sustainable academic culture that supports the development of future clinical academics. Collectively, trainee collaboratives represent an effective and increasingly important model for advancing both orthopaedic research and training.

## Birmingham Orthopaedic Network (BON)

The Birmingham Orthopaedic Network (BON) Trainee Collaboration is the trainee-led academic and educational body of the Birmingham Orthopaedic Training Programme (BOTP), one of the United Kingdom's largest and most established trauma and orthopaedic rotations. Established in 2017, BON was created to connect trainees, consultants, and allied healthcare professionals across the geographically dispersed hospitals of the West Midlands, with the aim of strengthening collaboration in research, education, and professional development. The network developed in response to the recognition that contemporary orthopaedic training requires structured opportunities for scholarly activity, leadership, and collaboration that extend beyond traditional apprenticeship models.

From its inception, BON received support from key regional stakeholders including the Birmingham Orthopaedic Training Programme,

the Royal Orthopaedic Hospital, and Health Education England. This institutional support enabled the development of a formal collaborative structure capable of coordinating educational initiatives and multicentre research activity.

The founding objectives of BON were threefold: to facilitate collaborative research through governance structures capable of delivering multicentre audit and research projects; to provide opportunities for medical students to participate in trainee-supervised research; and to establish an educational platform that complements formal surgical training. Together, these aims positioned BON as both an academic and educational infrastructure within the regional training programme.

Over time, the network has expanded its remit to include mentorship programmes, structured teaching initiatives, and interview preparation courses delivered through its educational arm, BONIFY. This framework provides longitudinal academic and professional development opportunities for trainees from early surgical training through to higher specialist training. Recognising the importance of supporting trainees earlier in their careers, BON has incorporated representation from Core Surgical Trainees within its committee structure. This initiative strengthens engagement with junior colleagues and facilitates the development of educational activities and mentorship opportunities for those considering a career in trauma and orthopaedics.

BON also maintains international links, most notably with orthopaedic trainees in Guyana. Through this collaboration, the network supports educational exchange and professional development, providing opportunities for trainees to share experience and undertake observational visits to centres within the United Kingdom. These partnerships reflect a broader commitment to global surgical education and the exchange of knowledge between training systems.



**Abdus Burahee** is an ST7 on the Birmingham Orthopaedic Training Programme and an Honorary Associate Clinical Professor at the University of Birmingham. He graduated from the University of Birmingham Medical School in 2016 and is currently completing his PhD in Amsterdam, focusing on peripheral nerve surgery and translational research. He serves as Research Lead for the Birmingham Orthopaedic Network, promoting trainee-led collaborative research. His academic interests include surgical education, clinical outcomes, and evidence-based practice.

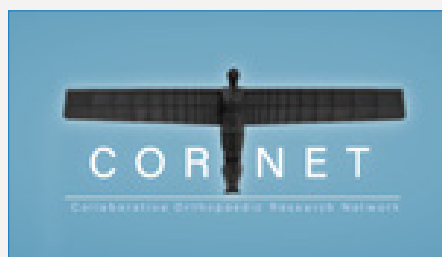


**Jonathon Sheen** is an Orthopaedic Registrar and Academic Clinical Fellow in the South West Peninsula Deanery. Jonathon is Chair of the South West Orthopaedic Research Division (SWORD), a trainee-led orthopaedic research collaborative.

In addition, BON has developed relationships with local universities and student-led trauma and orthopaedic societies. Through lectures, career events, and mentorship initiatives, the network provides early exposure to the specialty and guidance for medical students interested in pursuing a surgical career.

BON coordinates trainee-led research and audit across multiple NHS trusts, enabling the delivery of large multicentre studies that would be difficult for individual trainees to undertake independently. Previous projects include national audits and multicentre cohort studies addressing clinically significant questions such as the management of metastatic bone disease (The BOOM Audit) and outcomes following periprosthetic fractures (National PPF Study). Their latest project, the FEMUR Audit is currently closed to recruitment and will address the management of paediatric femoral fractures.

BON represents a mature model of trainee-led collaboration within UK surgical training, demonstrating how regional networks can serve as effective platforms for education, research, and professional development within orthopaedics.



### Collaborative Orthopaedic Research Network (CORNET)

Research is vital for our orthopaedic careers not only as current trainees but as future consultants. Engaging with research and understanding publication of results ensures that orthopaedic surgeons participate in an evidence-based practice. It allows clinicians to critically evaluate research recommendations which can ultimately lead to improved surgical techniques, patient outcomes and quality of care.

The organisation CORNET is a Collaborative Orthopaedic Research Network which is based in the Northern deanery in the North East of

England and was first established in 2013. Since its induction it has grown in both the range and standards of research studies it co-ordinates. CORNET is built on four key philosophies:

1. Foster an inclusive approach to research, enabling all trainees to participate and collaborate.
2. Promote inter-unit co-operation towards research within the region.
3. Generate research that influences clinical practice and benefits patients.
4. Inspire wider involvement and understanding in local research by making the research process transparent.

Since the beginning of CORNET there have been a number of successfully run national projects which have been led by trainees. Some examples of recent national collaboratives that have been led by CORNET include the ORTHOPOD study: a prospective multicentre service evaluation of trauma burden and resources, COMPOSE study: characteristics, outcomes and management of periprosthetic fracture service evaluation and the OPEN study: open fracture patient evaluation nationwide. These are just a few examples of our national collaboratives which have resulted in impactful research which have been published and presented on national and international levels.

The key to the success of CORNET has not just been due to the commitment of trainees to research ideas and projects but also the great support and contribution from our Training Programme Directors over the years and the trainee supervisors across the regions who have provided guidance and resources for projects undertaken. We believe it is vital to ensure the more junior tiers of doctors are also inspired and involved in the research being undertaken. We have developed close links with both the medical student surgical society and foundation programme surgical society and have actively participated in the locally run conferences for each society. We have also recently appointed a CORNET Committee position of Foundation Lead with the aim of creating and maintaining even stronger links with the enthusiastic trainees within our region and encouraging their involvement with ongoing projects. >>

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As well as the research initiatives undertaken, CORNET has led an active role in the education of our trainees throughout the region. This has been in the form of regular regional teaching sessions which occur on a Monday afternoon and are part of protected teaching time. The focus has been on research methodology and statistics aimed at providing an understanding of topics required for the FRCS examination. Additional sessions have been led by consultants from the region with an academic background who have presented invaluable sessions on key landmark studies and evidence for FRCS high yield topics.

The CORNET organisation is a trainee led initiative with a committee which has been built to include different roles each held by a trainee who is currently within the Northern Deanery Orthopaedic rotation. By remaining a trainee-led operation, we advance the development of leadership and management skills whilst co-ordinating and managing projects as well as team working.



### The South West Orthopaedic Research Division (SWORD)

Trainee research collaboratives have become an increasingly influential force within trauma and orthopaedics, providing a sustainable model for delivering high-quality, multicentre research, whilst also developing future clinical academics. By harnessing the enthusiasm,

geographic reach and clinical exposure of trainees, these networks enable studies and audits to be widened to a scale that would otherwise be difficult to achieve. Evidence from surgical and physician trainee collaboratives demonstrates that this model improves access to patient cohorts, enhances study quality, promotes mentorship and leadership development, whilst also supporting sustained trainee engagement in research.

The South West Orthopaedic Research Division (SWORD) is a regional trainee-led collaborative that exemplifies these benefits. Founded in the South West (Peninsula) deanery by Professor Andy Toms, alongside Jonathan T Evans and Jonathan P Evans, who were orthopaedic trainees at the time of its inception. Professor Toms' long-standing commitment to clinical research and mentorship provided the academic foundation for the collaborative, while early trainee leadership ensured that its structure and projects were closely aligned with the practical realities of orthopaedic training.

Jonathan T Evans and Jonathan P Evans both subsequently progressed through academic training pathways, while remaining actively involved in SWORD projects and supervision. They both now practise as academic consultant orthopaedic surgeons within the region. This visible progression from trainee collaborators to academic consultants highlights the long-term value of early research engagement and provides an aspirational model for current trainees considering academic careers within an orthopaedic environment.

Since its inception, SWORD has supported a number of successful regional and national projects. Two prominent studies led by trainees in the region were the Supra Man study, a national trainee collaborative evaluation of displaced paediatric supracondylar fracture management, highlighting a national variation in management. SWORD has also played a key role in EMPROVE, a national collaborative audit assessing the use of patient-reported outcome measures in elective orthopaedics, which identified substantial variation in PROMs collection and utilisation across NHS trusts. These studies illustrate how trainee collaboratives can efficiently coordinate multi-centre data collection and deliver clinically relevant outputs with real-world applicability.

Beyond publications and audits, SWORD has prioritised building a supportive regional research culture. A key feature is the annual regional OSCARs meeting, which provides a platform for our trainees to present their best research, audit and quality improvement work, promoting academic engagement, peer learning and recognition of excellence.

The success of SWORD demonstrates that with enthusiastic trainee engagement and a core organisational structure, regional collaboratives can thrive. Sharing such models may help inspire other regions to strengthen trainee research networks, ultimately enhancing both trainee development and patient care within trauma and orthopaedics. ■