

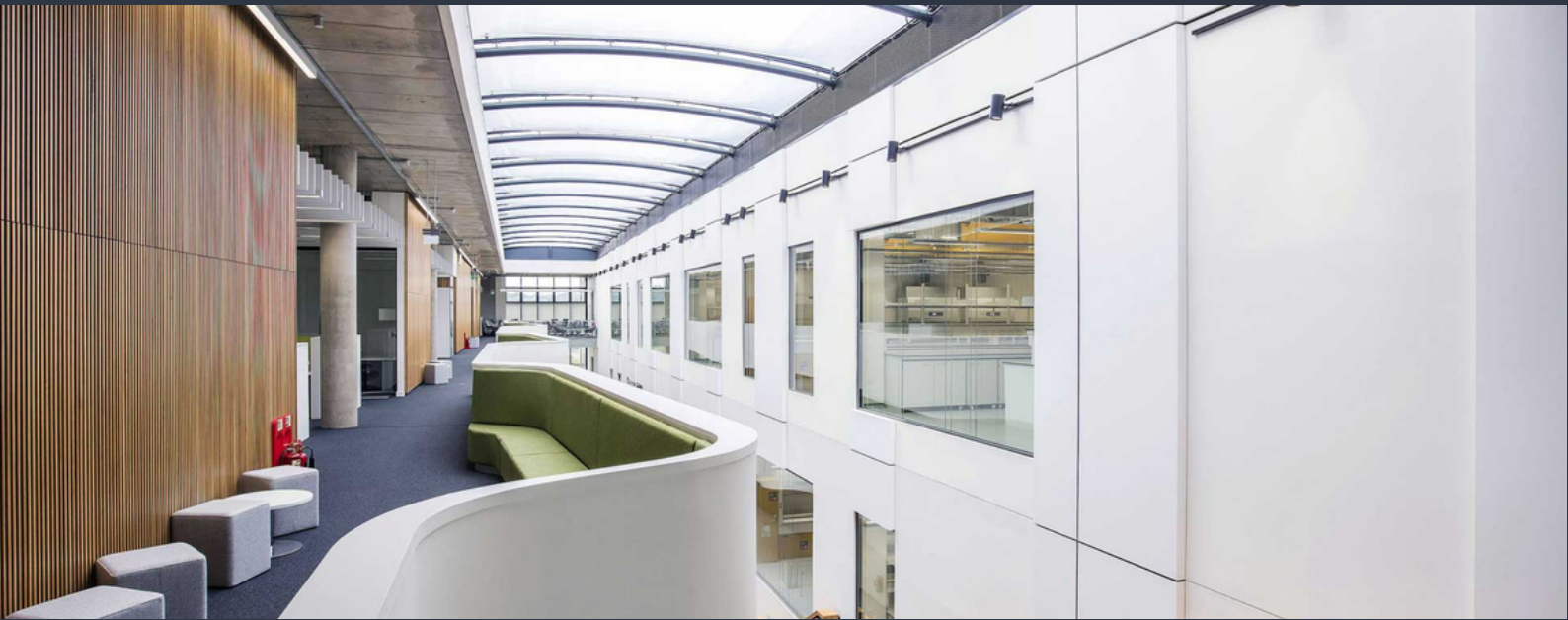
QIB EXTRA

**DNA
SEQUENCING
SERVICES**

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About QIB Extra



QIB Extra is an ISO9001 accredited, wholly owned subsidiary, of the Quadram Institute Bioscience (QIB) that provides short and long-term, high-quality strategic and applied research. QIB Extra works with both commercial companies and academic partners around the world in the areas of gut health, food safety, nutrition, and allied sectors.

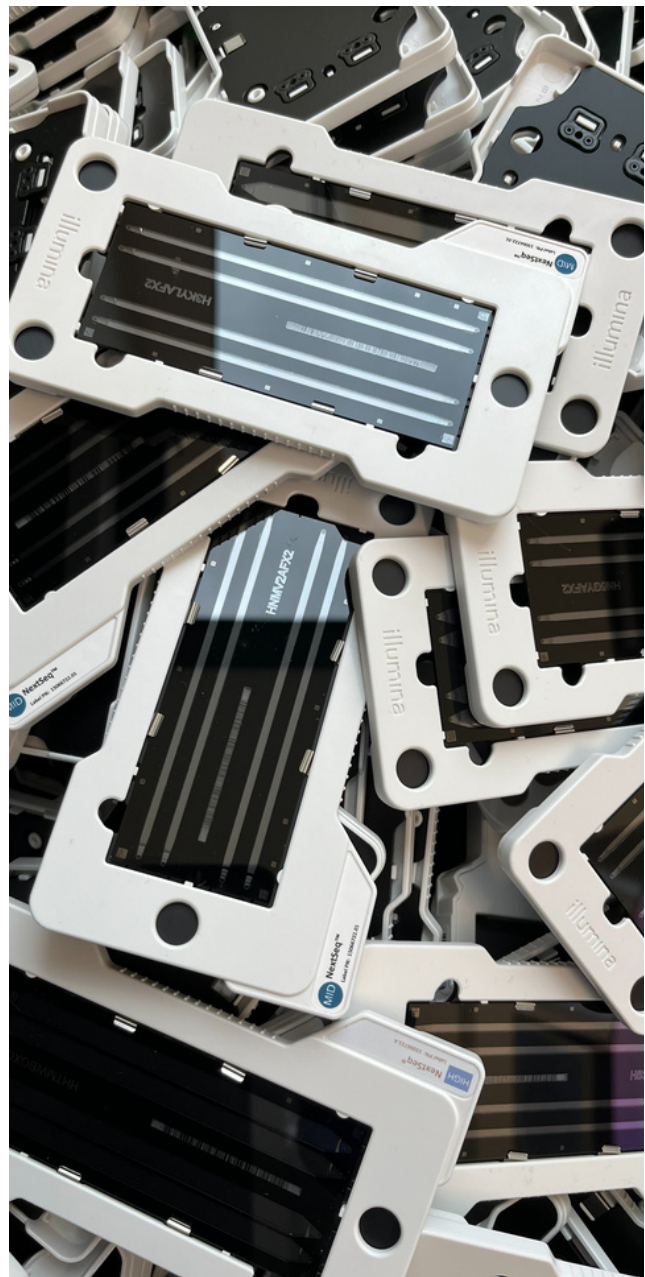
By accessing the world-leading research expertise, facilities and equipment at QIB, QIB Extra works with customers to build both highly focused and multidisciplinary projects to specific customer requirements. QIB Extra facilitates contract research delivery in a cost-effective and timely manner from the design and planning stage, through to the delivery and completion.

INTRODUCTION TO QIB EXTRA DNA SEQUENCING SERVICES

Within our dedicated DNA sequencing team at QIB Extra, we specialise in providing advanced genomic insights through meticulous analysis using next-generation sequencing platforms.

We offer a full range of services, including short-read and long-read sequencing, genomic consulting, library and pool preparation, and more, all of which are supported by the cutting-edge facilities at the Quadram Institute and are fully detailed in this brochure.

On the following page, you'll discover a comprehensive list of services offered by QIB Extra, including bioinformatics. Additionally, if you're undertaking a DNA sequencing project, our bioinformatics service is available to support you. For further details on this service, feel free to reach out to our office team or visit our website.





- ✔ **Short-Read Sequencing** employs high-throughput technologies, providing cost-effective and rapid sequencing of DNA fragments.
- ✔ **Long-Read Sequencing** captures extensive genomic regions, offering insights into complex structural variation, haplotypes, and repetitive elements, essential for de novo genome assembly and comprehensive genomic analysis.
- ✔ Our **Genomic Consulting** services provide tailored guidance, leveraging our team's expertise to design and optimise sequencing projects, aligning approaches with research goals.
- ✔ **Library and Pool Preparation** services enables us to generate high quality libraries, including quantification of DNA and normalisation. We pool and can send to your preferred vendor for sequencing.
- ✔ Our **Bioinformatics** services translate raw sequencing data into meaningful results, offering data interpretation, variant calling, and comprehensive genomic analysis.

This brochure illustrates **QIB EXTRA's** commitment to genomics services, demonstrating how we can offer seamless service integration to support your research projects, to enhance the quality and impact of your genomic data.

SHORT-READ SEQUENCING SERVICES

Our Short-Read Sequencing service utilises high-throughput Illumina platforms, generating short DNA fragments ranging from 400 to 600 base pair (bp) reads.



The service sequences paired-end 150 bp reads, meeting diverse throughput requirements.

We employ a robust library preparation method with minimal GC content variation, which utilises over 1500 Unique Dual Indexes (UDI) to ensure integrity.

This versatile library preparation method extends to the sequencing of amplicons, plasmids, bacteria, yeast, phage, and complex microbial communities.

At **QIB EXTRA**, our commitment to precision and flexibility is evident in the adaptability of our Short-Read Sequencing service, catering to a broad spectrum of research needs, including offering a paired-end 300 bp run metric if preferred.

To find out how our cutting-edge sequencing methods can improve the reliability as well as efficiency of your sequencing projects, please contact us.

LONG-READ SEQUENCING SERVICES

In our Long-Read Sequencing service, cutting-edge technologies are utilised to produce longer DNA fragments.

This method, integral for structural variation and variant detection, also facilitates de novo assembly. Long-Read Sequencing delivers an in-depth exploration of the genome, unravelling intricate details that contribute to a complete understanding of genetic information.

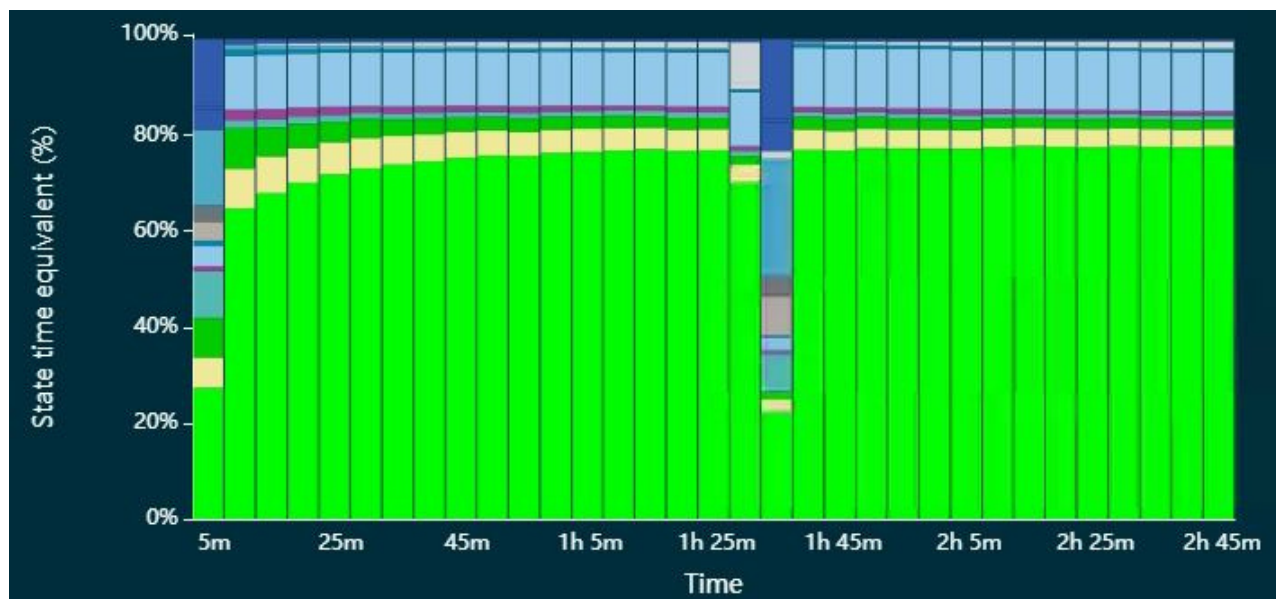


FIG. 1. MinKNOW software showing pore occupancy

At **QIB EXTRA**, our commitment to excellence extends to offering a combined short- and long-read sequencing service, providing a comprehensive solution for complete and high-quality small genome assembly. Explore our services to discover the advanced instrumentation tools and methodologies that support our genomics research service.

GENOMIC CONSULTING SERVICES

Beyond our sequencing offerings, QIB EXTRA extends a dedicated Genomic Consultancy Service designed for both long- and short-term collaboration.

Our experienced consultants, based at the Quadram Institute, can provide expert advice on experimental design, data interpretation, and strategic planning, tailoring solutions to your specific research or clinical requirements.



With a focus on delivering a high quality consultancy service, we want to support your genomics projects, helping you utilise the most effective and impactful strategies, as well as offering the necessary support to meet your specific objectives.

To find out how our expertise can develop personalised strategies that propel your genomics projects toward success, contact us by email or phone call, and we will connect you with an experienced consultant to discuss your project needs.

LIBRARY PREPARATION AND POOLING SERVICES

Expanding our services, QIB EXTRA provides a specialised library preparation and pooling service tailored to meet your needs.

This service offers stand-alone library preparation and pooling, enabling cost-effective sequencing at your preferred sequencing service provider. By entrusting us with this crucial step, you can streamline your sequencing workflow and maximise efficiency without compromising on quality.

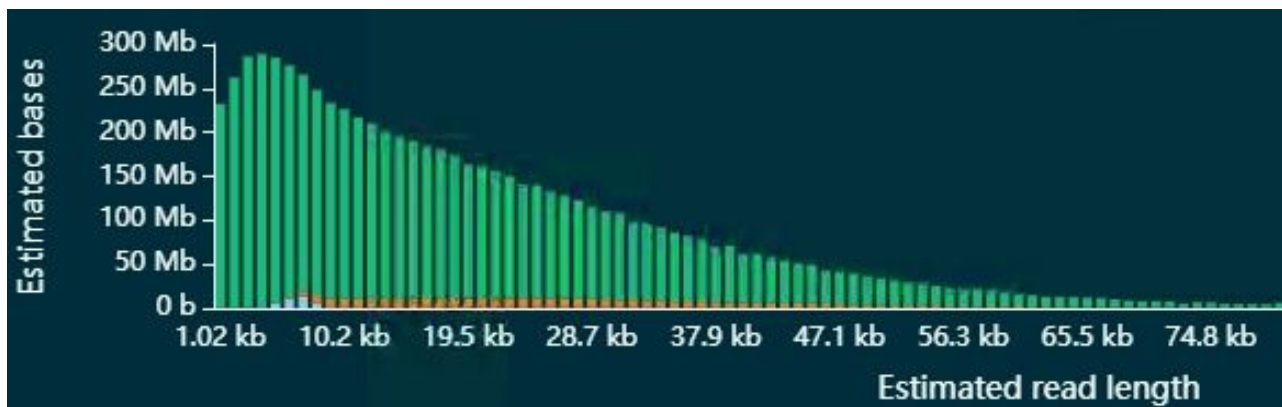


FIG. 2. MinKNOW software showing read size distribution

At **QIB EXTRA**, we understand the importance of flexibility and collaboration in genomics research. Our library preparation and pooling service offers the convenience and affordability necessary for seamless integration into your sequencing pipeline, ensuring that your research objectives are met with precision and efficiency.

To learn more about how this service can improve the scalability and versatility of your genomics projects, please get in touch with us.

DNA SEQUENCING TEAM



Dave Baker

QIB Head of Sequencing

Lead of the DNA Sequencing team at the Quadram Institute, Dave will lead both equipment access and bespoke research projects.



Cara-Jane Moss

DNA Sequencing Project Scientist

Lead of laboratory processing of samples for the DNA sequencing team, Cara-Jane, will work directly with Dave and the QIB Extra project team on all DNA sequencing projects.



Dr Alan Brailsford

QIB Extra Head of Operations

Head of Operations of QIB Extra, Alan is at the forefront of all non-scientific discussions and negotiations with clients.



Chris Tallent

QIB Extra Contracts Administrator

Acting as the main point of contact for all non-scientific actions relating to your access or project needs, Chris will aid in leading your project needs forward.



You can contact us on our contacts page:

www.qibextra.co.uk/contact-us

Alternatively, you may call us on:

+44 (0) 1603 255001

Our team will work with you to understanding your project needs, answer your questions and provide you with a tailored project proposal that uses sound scientific principles to meet your objectives.

Over the years, we have been fortunate to work with many large and small organisations from all over the world. We believe the world-class research expertise we offer can have a real positive impact on your business and that we can deliver access to this expertise in an efficient and professional manner.

Thank you,

QIB EXTRA OFFICE TEAM



Let's Work Together

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