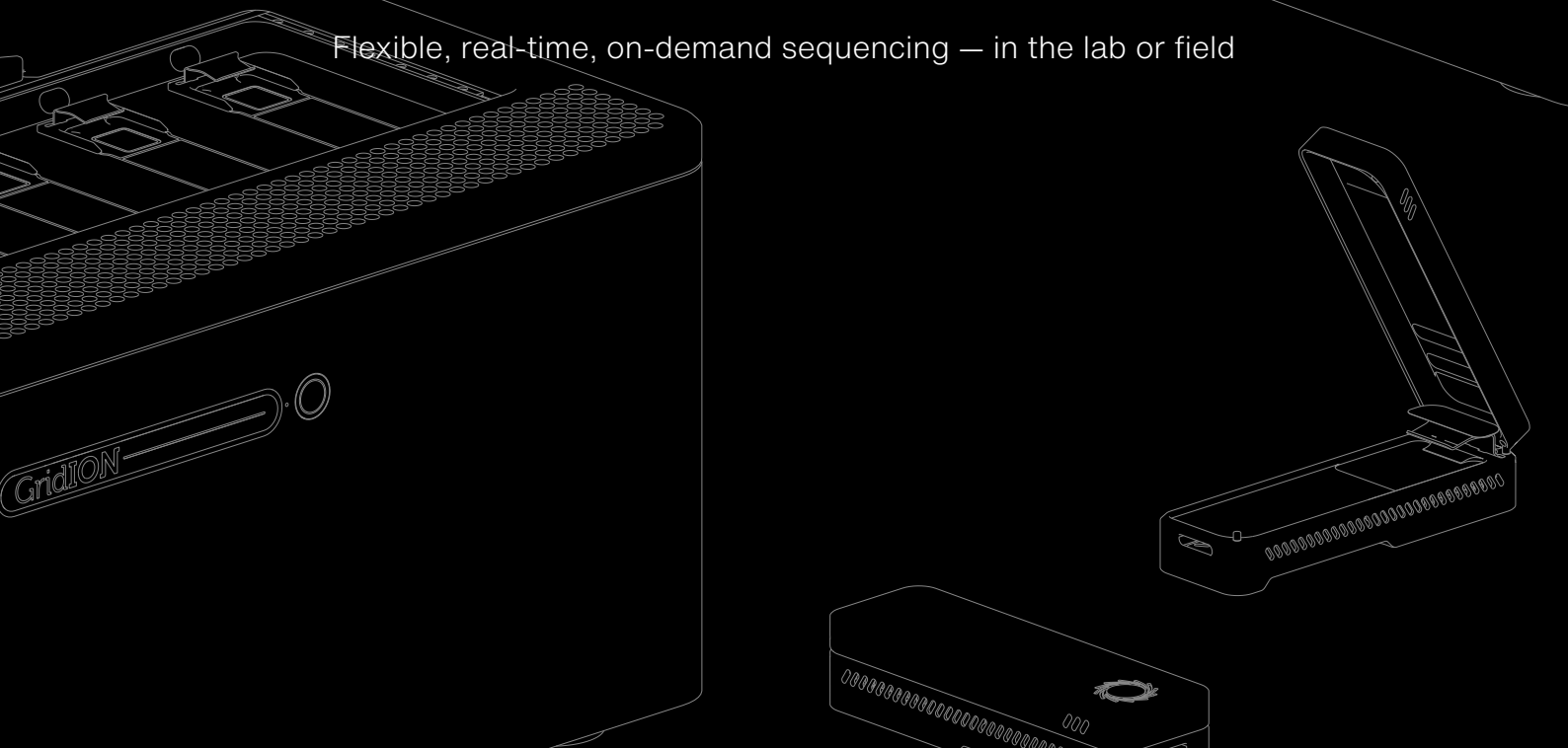
Oxford NANOPORE Technologies

MinION | GridION

Flexible, real-time, on-demand sequencing — in the lab or field



ASK BOLDER QUESTIONS

Delivering any read length, ultra-rich datasets, and real-time insights, nanopore sequencing answers the bigger, bolder research questions that you always wanted to ask. Welcome to sequencing without compromise.

Unrestricted read length
From short to ultra-long (>4 Mb)

Direct sequencing
No amplification bias plus built-in methylation detection

Real-time analysis
Immediate access to actionable results

Scalable
Portable to ultra-high throughput

Accessible and affordable
Low-cost starter packs with no upfront capital cost

Rapid and simple
From 10-minute library prep and end-to-end workflows

MAKE NO COMPROMISES

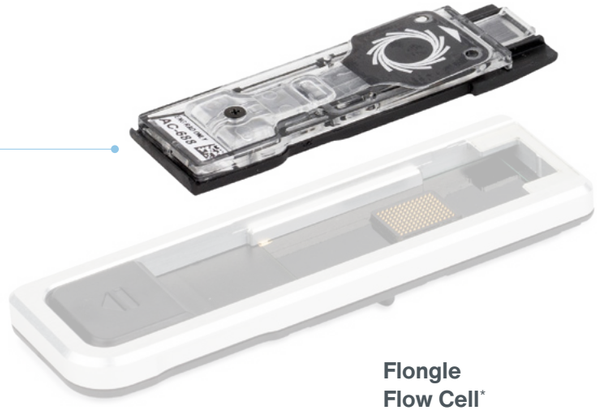
What could you do with one flow cell?

Compatible with MinION™ and GridION™ devices, MinION and Flongle™* Flow Cells provide low-cost, scalable access to all the benefits of nanopore sequencing.

MinION Flow Cell

- 15–35 Gb gDNA reads (~25 kb read N50)
- 10–20 Gb ultra-long native DNA reads (>50 kb read N50)
- Multiplexed sequencing of up to 96 samples — with or without PCR
- Wash and re-use for multiple successive libraries
- Suitable applications: low-pass large genomes (e.g. human), whole prokaryotic genomes, metagenomics, targeted sequencing, large transcriptomes (cDNA), and small transcriptomes (direct RNA)

- 1–2 Gb gDNA reads (~25 kb read N50)
- Detect methylation as standard with native DNA sequencing†
- Low cost, single use
- Suitable applications: amplicons, targeted sequencing, quality control, and small test runs before scaling up



Flongle Flow Cell*

* Flongle Adapter required. † Native RNA sequencing not supported on Flongle.

View applications nanoporetech.com/applications

Streamlined sample prep, on-demand sequencing, and real-time analysis for rapid results

PREPARE

Manual preparation

Automated preparation

- Straightforward and streamlined library prep — in as little as 10 minutes
- Multiplex your samples with barcoding kits
- Scale according to your needs — same chemistry and kits used for Flongle, MinION, GridION, and PromethION™

nanoporetech.com/prepare

SEQUENCE

Compatible with **Flongle**

MinION

GridION

- Any read length you need — from short to ultra-long (>4 Mb achieved)[1]
- Sequence in the lab or field with portable MinION
- Run up to five independent flow cells with the benchtop GridION
- Eliminate amplification bias and detect modified bases (e.g. methylation) as standard with native DNA/RNA sequencing
- Run smaller sequencing tests and experiments or cost-effectively check your sample quality using Flongle

nanoporetech.com/sequence

ANALYSE

SCIENTIST

EPI2ME™ solutions

- Pre-configured workflows
- No bioinformatics skills needed
- Run locally or in the cloud
- Choose between real-time or post-run analysis

BIOINFORMATICIAN

Command-line tools

- Access the latest algorithms
- Open-source tools developed by Oxford Nanopore or Nanopore Community
- Run pre-configured EPI2ME workflows

- Real-time results for time-critical applications such as pathogen identification
- User-controlled run time — stop sequencing when sufficient data generated, wash and reuse flow cell
- Powerful GridION onboard compute alleviates the need for complex IT infrastructure

nanoporetech.com/analyse

1. Internal data generated using the Ultra-Long DNA Sequencing Kit.

More information nanoporetech.com/products

MinION Mk1B

Your personal, portable DNA and RNA sequencer

Get complete control and creativity over when, where, and how often you sequence. MinION Mk1B provides the power of nanopore sequencing in an accessible, fully portable device. Weighing only 100 g and running off a laptop, MinION Mk1B generates tens of gigabases of real-time data in the field or lab.

Sensor array with multiple nanopores for scaled-up sequencing

Sensor chip works with custom ASIC for control and data acquisition

Sample added to flow cell here

Typical data output: 15–35 Gb

Consumable flow cell where the biology and electronics come together for nanopore sequencing

USB 3.0 powered device; link to laptop or desktop computer to operate

Specification

Weight
87 g (103 g with flow cell)

Size
W 105 mm | H 23 mm | D 33 mm

Compatible with
MinION and Flongle Flow Cells

Order now store.nanoporetech.com

GridION

Self-contained, easily deployable DNA/RNA benchtop nanopore sequencer

A flexible, self-contained, benchtop nanopore sequencer, running up to five MinION or Flongle Flow Cells (or combinations of each) that can respond to the needs of multiple users on demand, across varied applications. Integrated, high-performance data processing alleviates the need for complex IT infrastructure.

Consumable flow cell where the biology and electronics come together for nanopore sequencing

Onboard data analysis offering real-time basecalling and adaptive sampling (on-device targeted sequencing)

Sample added to flow cell here

Five individual MinION or Flongle Flow Cells can be operated individually or together, suitable for research labs and service providers

Expand your sequencing capabilities with PromethION 2 Solo — run using GridION high-performance compute

NANOPORE Service Certified

Service provider certification is available for the GridION

Specification

Weight	Size	Compatible with
14.4 kg	W 370 mm | H 220 mm | D 365 mm	MinION and Flongle Flow Cells

Order now store.nanoporetech.com

Flongle

Adapting MinION and GridION devices for smaller rapid tests and analyses

Flongle is an adapter for MinION or GridION devices that enables direct, real-time DNA or RNA sequencing on smaller, single-use flow cells. Providing immediate access to sequence data, Flongle is designed to be the most rapid, accessible, and cost-efficient sequencing system for smaller or more frequently performed tests and experiments.

Sample added to flow cell here

Typical data output: 1–2 Gb

Reusable adapter that allows docking of smaller flow cell

Compatible with MinION and GridION devices

Specification

Weight	Size	Compatible with
20 g	W 105 mm | H 23 mm | D 8 mm	MinION and GridION devices

Choose your purchase plan

	Flongle*		MinION		GridION	
	Starter Pack†	Advanced Starter Pack†	Starter Pack†	Enhanced Starter Pack†	Project Pack†	CapEx‡
Device	1	1	1	1	1	1
Flow cells	12	48	2	4	96	
Sequencing kits			1	1	16	
Wash kits			1	1	8	
Control kit			1	1	1	
Licence and warranty§	12 months	12 months	60 months	60 months	12 months	12 months
Assurance					✓ Remote	✓ Remote
	$1,460	$4,400	$1,999	$3,199	$67,000	$70,000

* MinION or GridION device required. † Loan device. ‡ Device purchase. § Extended warranties available.

Order now store.nanoporetech.com

Supporting your research at every step

In addition to the support included in your purchase plan and extensive online resources in the Nanopore Community, we offer personalised training courses to ensure successful optimisation of your nanopore sequencing projects.

	MinION Rapid Starter Training	GridION Advanced Training
Duration	2 days	2.5 days
Location	Online	Onsite
Number of participants	Up to 2	Up to 4
Provided consumables	2 flow cells, 2 sequencing kits	6 flow cells, 2 sequencing kits
User samples	1x control + 1x user sample	1x control + ≤4x user samples
Content	The essentials of nanopore sequencing — from planning your experiment through to sequencing and an introduction to data analysis.	

More information nanoporetech.com/services

Intuitive analysis with EPI2ME

EPI2ME solutions provide intuitive, preconfigured bioinformatics workflows that can be run in the cloud, on a laptop, desktop computer, or server*.

A rapidly growing range of workflows are available, including:

- Plasmid validation
- Adeno-associated virus verification
- Pathogen analysis: SARS-CoV-2, influenza, monkeypox, tuberculosis
- Metagenomic species ID
- 16S-based microbial ID
- Antimicrobial resistance profiling
- Human variation: SVs, SNVs, and methylation
- Transcriptomics: differential gene expression and transcript usage

* All EPI2ME solutions can also be executed from the command line.

More information nanoporetech.com/analyse

Product specifications

MinION Mk1B device

- One flow cell position
- Up to 72 hour run time

Weight	Dimensions
87 kg	W 105 mm | H 23 mm | D 33 mm

Flongle

Adapter

- Compatible with MinION and GridION devices

Weight	Dimensions
20 kg	W 105 mm | H 23 mm | D 8 mm

Flow cell

- Up to 24 hour run time
- Typical data output: 1–2 Gb
- Suitable applications include amplicons, targeted sequencing, quality control, and small test runs before scaling up

GridION device*

- Up to five individually addressable flow cells
- Up to 72 hour run time
- GPU-enabled real-time basecalling
- 4 TB SSD data storage
- 64 GB RAM
- Preloaded with Ubuntu OS and MinKNOW™

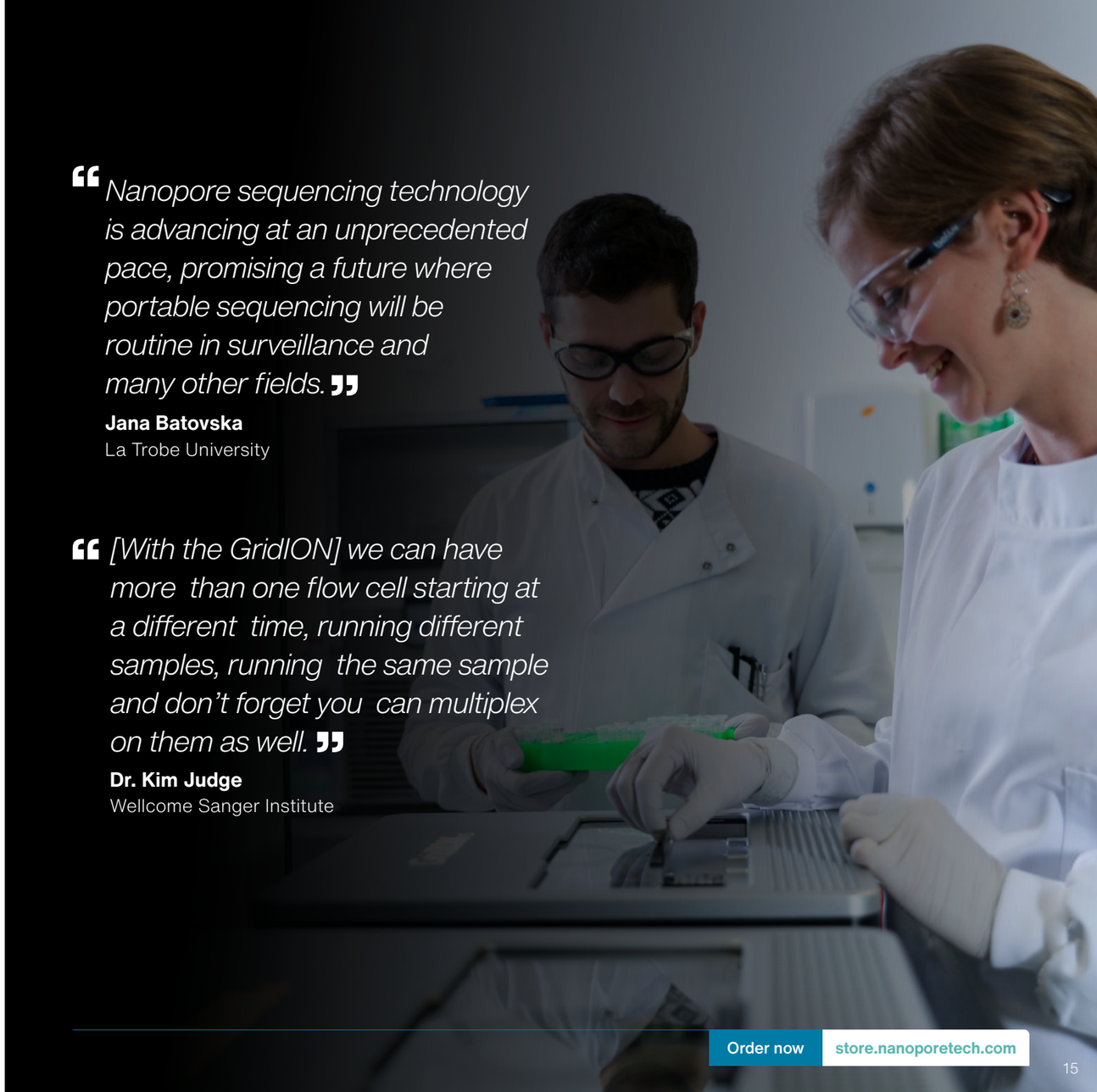
Weight	Dimensions
14.4 kg	W 370 mm | H 220 mm | D 365 mm

MinION Flow Cell

Used for MinION and GridION devices

- Up to 72 hour run time
- Typical data output: 15–35 Gb
- Suitable applications include low-pass large genomes (e.g. human), whole prokaryotic genomes, metagenomics, targeted sequencing, large transcriptomes (cDNA), and small transcriptomes (direct RNA)
- Choose between DNA and direct RNA flow cells

* Standard computer monitor, keyboard, and mouse required.

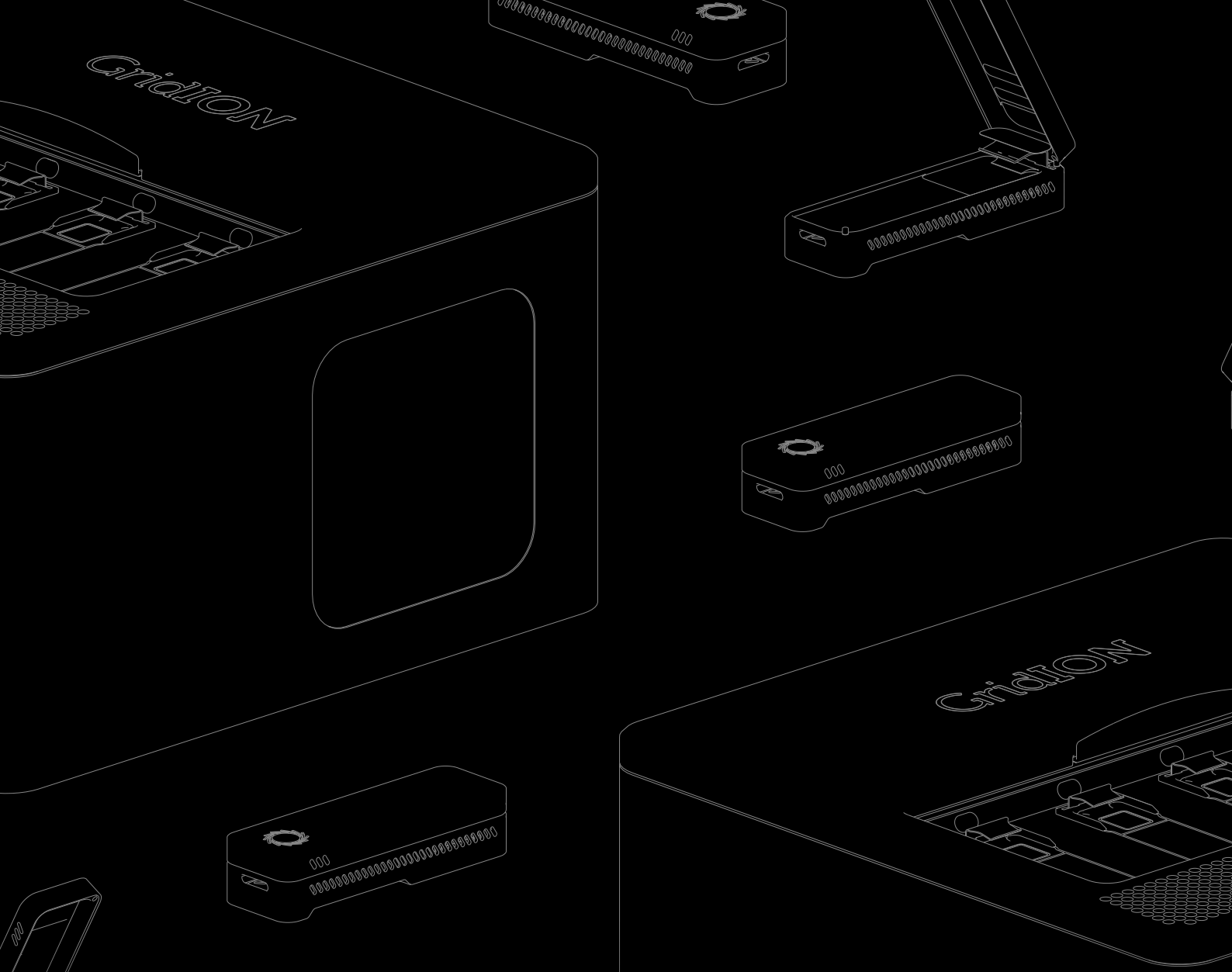


“Nanopore sequencing technology is advancing at an unprecedented pace, promising a future where portable sequencing will be routine in surveillance and many other fields.”

Jana Batovska
La Trobe University

“[With the GridION] we can have more than one flow cell starting at a different time, running different samples, running the same sample and don’t forget you can multiplex on them as well.”

Dr. Kim Judge
Wellcome Sanger Institute



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