



Turn any space into a PCR lab

reliable results

Achieves comparable PCR results to traditional laboratory equipment.

34+ publications

Used in over 45 countries for rigorous peer-reviewed research.

small and light

Carry a PCR workstation in one hand, across the lab, or across the world.

ready, set, go

Time from unboxing to running a workflow: *36 seconds.*

For more information visit www.bento.bio or contact hello@bento.bio

Introducing Bento Lab, a portable PCR workstation



Extract DNA onsite

Isolate DNA from your samples as you collect them to reduce the risk of transport issues.



Run PCR workflows

Conduct assays on site to get quick results, or prepare libraries for sequencing workflows.



Check results quickly

Verify your samples with a mini gel electrophoresis tank and integrated imaging system.



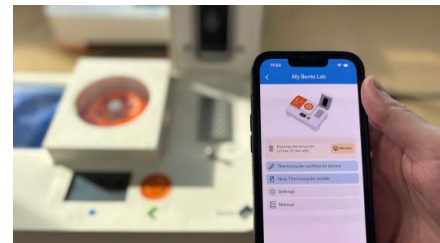
A lab in hand luggage

Carry Bento Lab easily in a backpack or case, from your home lab all the way to your field research destination.



Gain bench space in your lab

Set up a temporary work space for a colleague or a new student in your lab.



App connectivity

Link Bento Lab to your mobile device to conveniently pre-program and monitor your experiments with the Bento Bio app.

Take your workflows where they are needed.

Which Bento Lab is right for me?

Detailed Comparison - Entry or Pro

PCR Thermocycler	Bento Lab Entry	Bento Lab Pro
Temperature range	21 °C to 99 °C	12 °C to 102 °C
Touchdown PCR support	—	✓
32 well block for 0.2 mL tubes	✓	✓
Ramp rate up to 2.5 °C/s	✓	✓
Temperature accuracy ± 0.2 °C	✓	✓
Temperature uniformity ± 0.5 °C	✓	✓
Memory for 100 PCR programs	✓	✓
Centrifuge		
Quick spin mode	✓	✓
Timed spin mode	✓	✓
Speed	fixed	variable
RPM	7,000 rpm	3,000 - 13,000 rpm
RCF	2,700 xg	500 - 8,000 xg
Capacity	6 x 1.5 mL tubes optional 2x8-strip PCR tubes	6 x 2.0 mL tubes optional 2x8-strip PCR tubes
Gel Electrophoresis		
Voltage	Fixed: 50 V	Variable: 30 V - 120 V
Gel tray: 91 mm x 78 mm	included	included
Gel volume: 25 mL gel, 30 mL buffer	✓	✓
9 and 12 well combs, multiple rows	✓	✓

Transilluminator	Bento Lab Entry	Bento Lab Pro
Surface area: 105 mm x 85 mm	✓	✓
Blue light, 468 nm wavelength LEDs	✓	✓
Scratch-resistant acrylic surface	✓	✓
Imaging Hood	✓	✓
System		
Dimensions: 330mm x 214mm x 81mm (13 in x 8.4 in x 3.1 in)		
Weight: 2.35 kg (5.18 lb) device only, 3.3 kg (7.28 lb) device including accessories.		
External tube rack	✓	✓
Worldwide universal power: 110 – 240 V, 47 – 63 Hz		
Peak Power: 144 Watt. Battery system available.		

Compatible with Bento Bio App via bluetooth connectivity



Request an instant quote

£1,599 Bento Lab Pro

£1,299 Bento Lab Entry

Need a custom quote?

To add your PO reference, shipping details, or more, get in touch with our team at hello@bento.bio

From ambitious research, to new science beginnings



Assays in remote field sites

*“We recently optimized Bento Lab for use at remote field sites in India.
The device works incredibly well.”*

Dr Annie Kessler, Center for the Study of Complex Malaria in India, New York University

Based at the NYU Centre for Genomics & Systems Biology, Dr Kessler performs conventional PCR assays to diagnose blood stage infections. Her team used Bento Lab at their remote field sites in India.

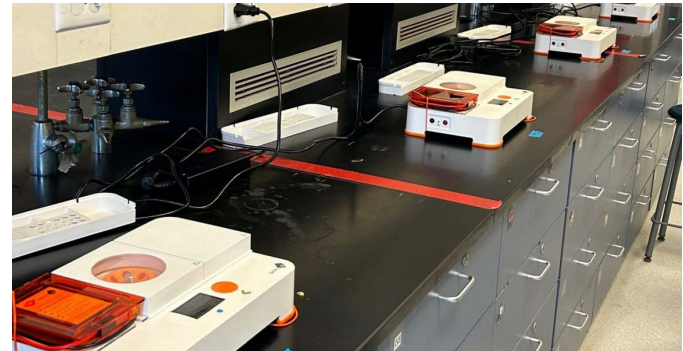


Photo by Dr Irene Newsham

Educational training and practicals

*“This laptop-sized “lab” provides significant **hands-on bench** experience to undergraduate education at significantly lower cost.”*

Dr Irene Newsham (FACSc), Norwich University

Undergraduate students receive practical training in forensics science at Norwich University. Led by the Department of Chemistry and Biochemistry, the students use Bento Lab devices for a semester-long research project.

DNA barcoding onsite with Bento Lab and MinION



Photo CC-BY-4.0 the authors of Chang et al. (2020).

A portable sequencing setup on a dive boat

“To date, our field collection of 31 specimens represents one of the largest sets of samples processed in situ.”

In this study, the authors undertook same-day DNA barcoding for biodiversity exploration on a fishing boat in Singapore. In the morning, they collected a range of sea animals, from corals to starfish, and in the afternoon they used Bento Lab and Oxford Nanopore MinION to DNA barcode the samples. They validated their results with Illumina sequencing.

Chang et al. (2020). Takeaways from mobile DNA barcoding with BentoLab and MinION. *Genes*, 11(10), 1121.



Photo courtesy of Ineke Knot

Towards real-time global biomonitoring

“[We] present a protocol to genetically identify nematodes using 18S SSU rRNA sequencing using the MinION [...] and proof that it is possible to perform all the molecular preparations on a fully portable molecular biology lab – the Bento Lab.”

In this protocol, Ineke Knot and colleagues optimised portable sequencing methods for nematode identification to provide quick in-situ results in the field.

Knot et al. (2020). DNA barcoding of nematodes using the MinION. *Frontiers in Ecology and Evolution*, 8, 100.

Sharing skills with citizen scientists

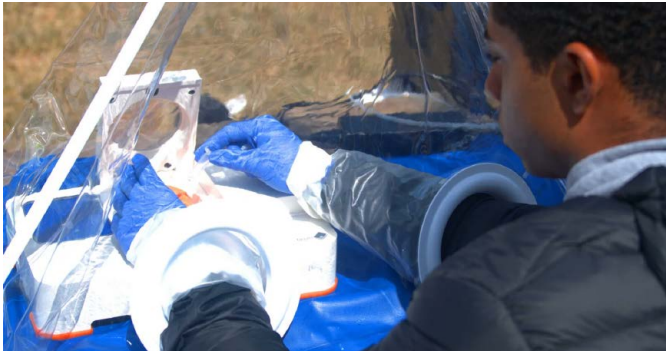


Photo courtesy of Noah Bryan and Dr Lawrence Goodridge.

Rapid water testing

“Noah is a brilliant researcher, and he is only in grade 11! Perhaps the best compliment that I can give Noah is the fact that he has inspired me to be a better scientist.”

Dr Lawrence Goodridge, Canadian Research Institute for Food Safety, University of Guelph

High school student Noah Bryan set out to test water quality, after encountering a sign at the beach that warned his friends and him not to go for a swim. Noah sought mentorship from Dr Lawrence Goodridge, an expert at the University of Guelph. With his guidance, Noah developed an on-site test and demonstrated its ability to detect multiple water and foodborne bacterial pathogens.

Read more about Noah Bryan's research, including a comprehensive research poster:
www.bento.bio/noah



Photo courtesy of Oliver Ellingham

Fungal DNA barcoding

“They have been finding previously unsequenced and poorly named species.”

Dr Brian Douglas*, Lost and Found Fungi Project, Kew Royal Botanical Gardens
(*now an employee on the Bento team)

Field mycologist Nick Aplin and the Sussex Fungus Group (England, UK) use Bento Lab and Sanger sequencing to DNA barcode fungi. During two weeks of lockdown during the COVID-19 pandemic they discovered four new UK species and one new anamorph-teleomorph connection.

The Sussex Fungus Group is one of many amateur mycologist groups in the UK who were trained to use Bento Lab as part of the *Lost and Found Fungi Project*, coordinated by Kew Royal Botanical Gardens.

Aplin, N. (2021). 'Sussex Spring Fungus Fortnight' reveals several new British species and a previously unknown anamorph-teleomorph relationship. *Field Mycology*, 22(3), 85-90.

DNA metabarcoding

Seawater monitoring for disease control

To improve monitoring of toxins in seawater near shellfish fisheries, Hatfield et al. (2023) developed a 3 hr portable metabarcoding workflow for *Alexandrium* spp. using Bento Lab and MinION for use on a boat.

Hatfield et al. (2023). Combining Nanopore Sequencing with Recombinase Polymerase Amplification Enables Identification of Dinoflagellates from the *Alexandrium* Genus, Providing a Rapid, Field Deployable Tool. *Toxins*, 15(6), 372.

Metabarcoding workflow from Hatfield et al. (2023)

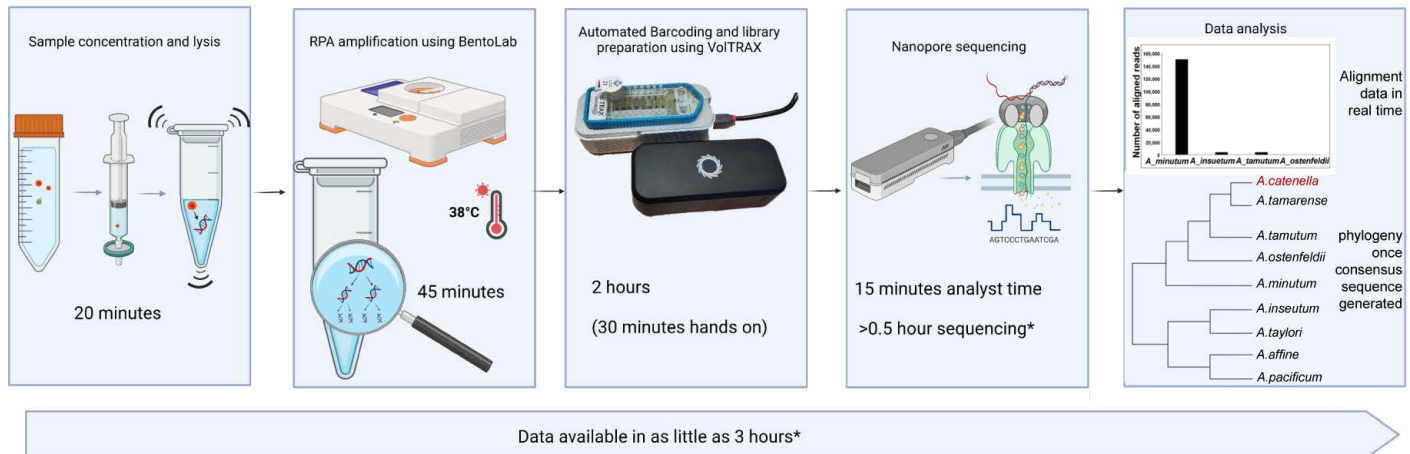


Figure CC-BY-4.0 the authors of Hatfield et al. (2023).

Detecting foodborne pathogens

Marin et al. (2022) developed an in-situ metabarcoding protocol using Bento Lab and ONT MinION that can detect foodborne pathogen *Campylobacter jejuni*, and profile other microbial contaminants, within five hours, compared to current monitoring methods that require at least five days.

Marin et al.(2022). Rapid Oxford Nanopore Technologies MinION sequencing workflow for *Campylobacter jejuni* identification in broilers on site—a proof-of-concept study. *Animals*, 12(16), 2065.

Planning onsite sequencing, PCR, or DNA sampling?

Visit ***www.bento.bio*** for supplies, advice, and support



Dipstick DNA Extraction Kit

Go from sample to PCR in 30 seconds



5x HOT FIREPol® Blend Master Mix

Hot-Start, Ready to Load, Stable DNA Polymerase



Agarose Tablets

Pre-weighed Agarose for Gel Electrophoresis



HotSHOT DNA Extraction Kit

Rapid and affordable DNA extraction for PCR



GelGreen® DNA Stain

Sensitive Non-toxic Gel Stain for DNA Visualisation



DNA Barcoding Primers

Ready-To-Use primer mixes and primer pairs

make **DNA Science** yours

We are here to help you with reagents, equipment, and support.

Learn more on ***www.bento.bio*** and social media **@theBentoLab**

 **Looking for advice?**

Book a free call with our team on
www.bento.bio/call

or email us at ***hello@bento.bio***

