unAGI

UNCHAINED LABS

Bite-sized buffer exchange

Buffer exchange and concentration are two of the most annoying things you have to do before you can work with your sample. It takes forever, you physically have to be there and just when you think it's done, you're tweaking it again. Unagi is the first completely hands-free benchtop buffer exchange solution that's made to take this not-so-fun task off your plate – so you can be anywhere else instead of tied to your bench.

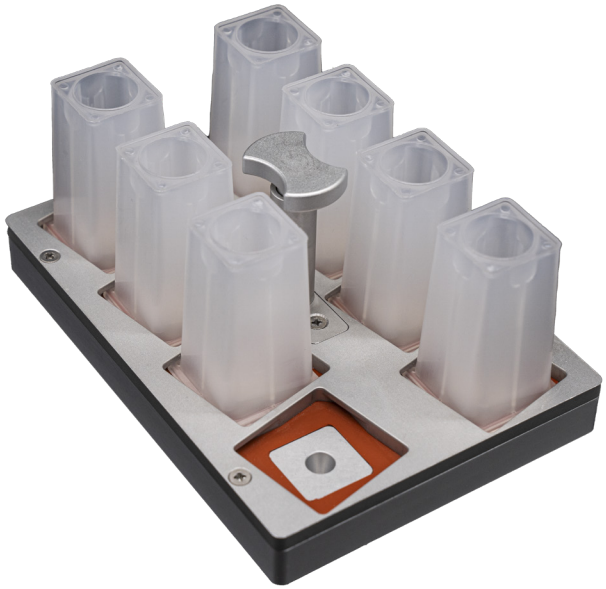
Protein

mRNA & DNA

AAV

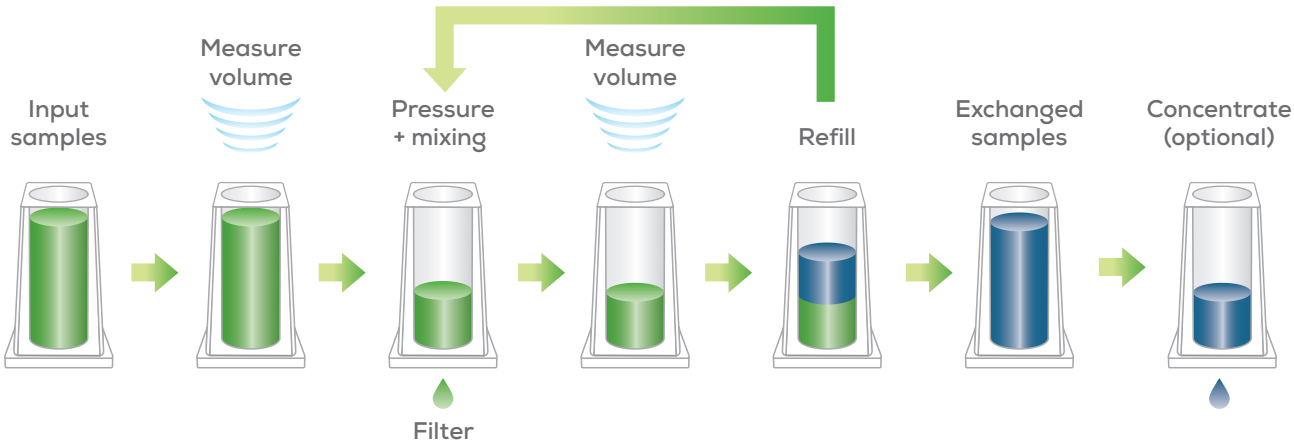
Served up a' la carte

Drop 1 to 8 of your samples into some Unas, twist them into the holder and boom, they're ready to go. Each Una can handle from 0.5 to 8 mL of sample. They use a regenerated cellulose membrane with a 10 kDa molecular weight cutoff to make sure your samples stay put, don't get absorbed, and the liquid passes right through – with ≥96% recovery.



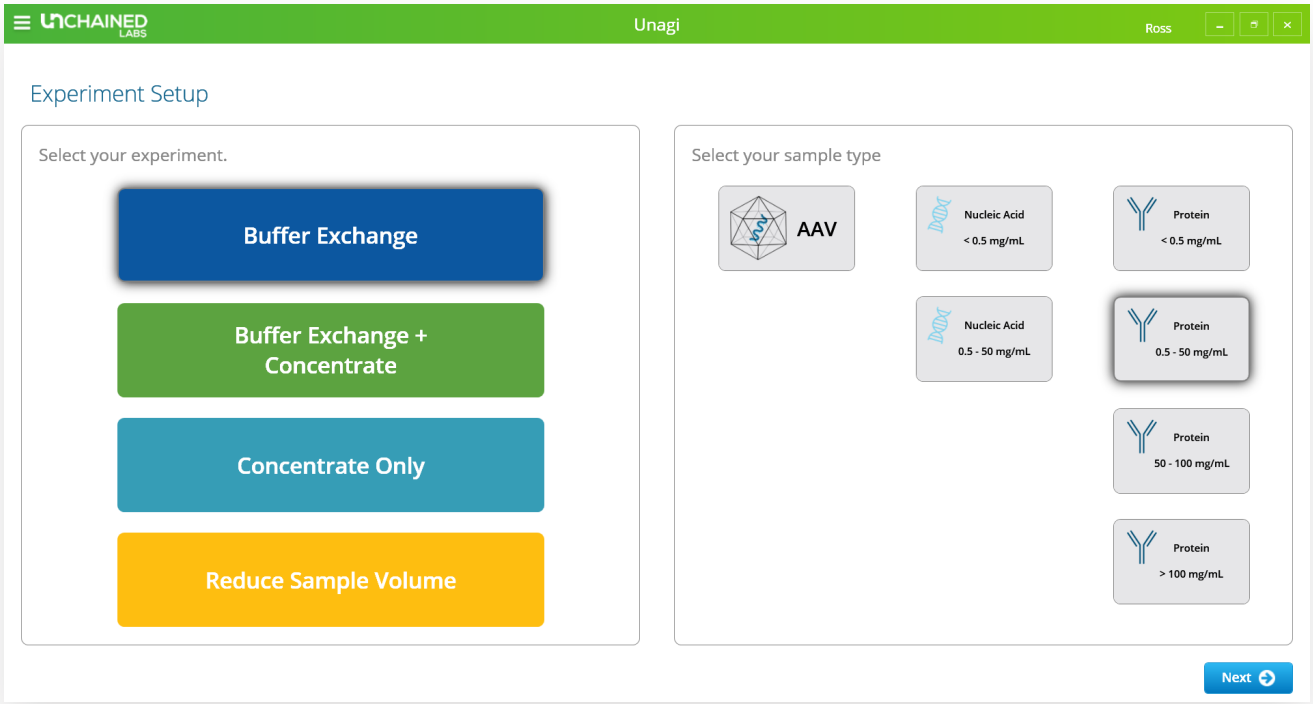
The secret sauce

Unagi has the recipe for UF/DF buffer exchange dialed in. It checks the initial sample volumes with an ultrasonic sensor so it knows what it's working with. Next, it pressurizes each Una while gently mixing your samples to get things flowing. It checks the volume again and refills each Una with your new buffer. This process repeats until Unagi hits your target exchange percentage and volume.



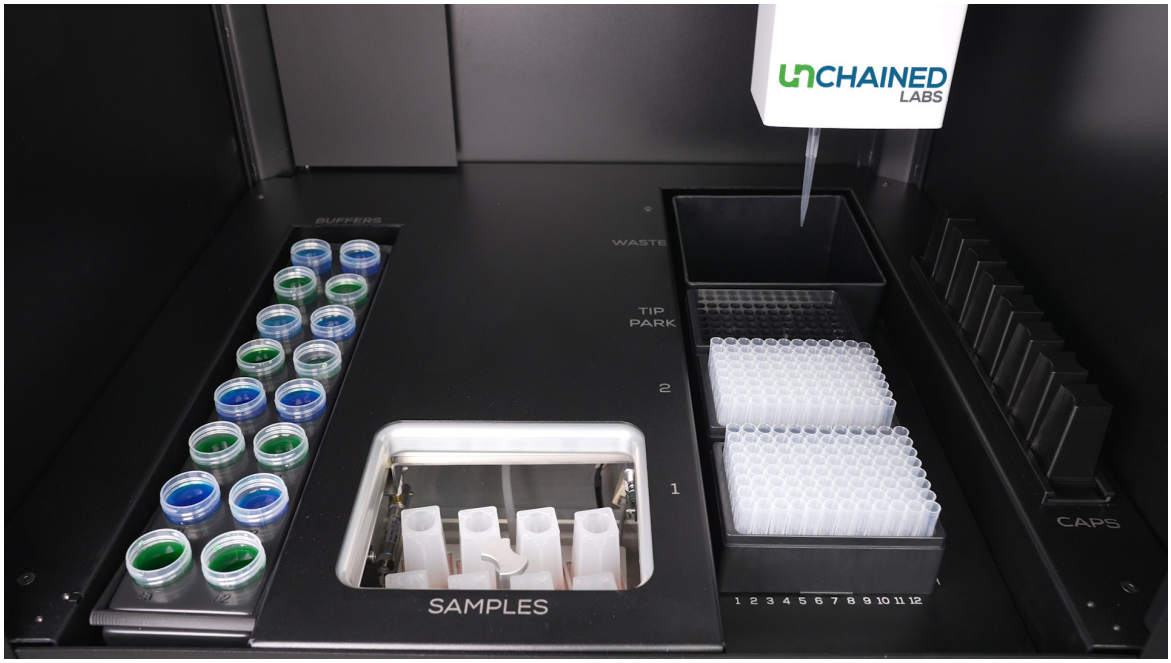
Put in your order

Unagi is super easy to use – so everyone can get a taste. First choose the type of experiment you want to run. Then tell it what kind of molecule you're exchanging, how much you have, and what buffer to exchange into. Last step is to input percent exchange and final volume if you want to concentrate your sample.



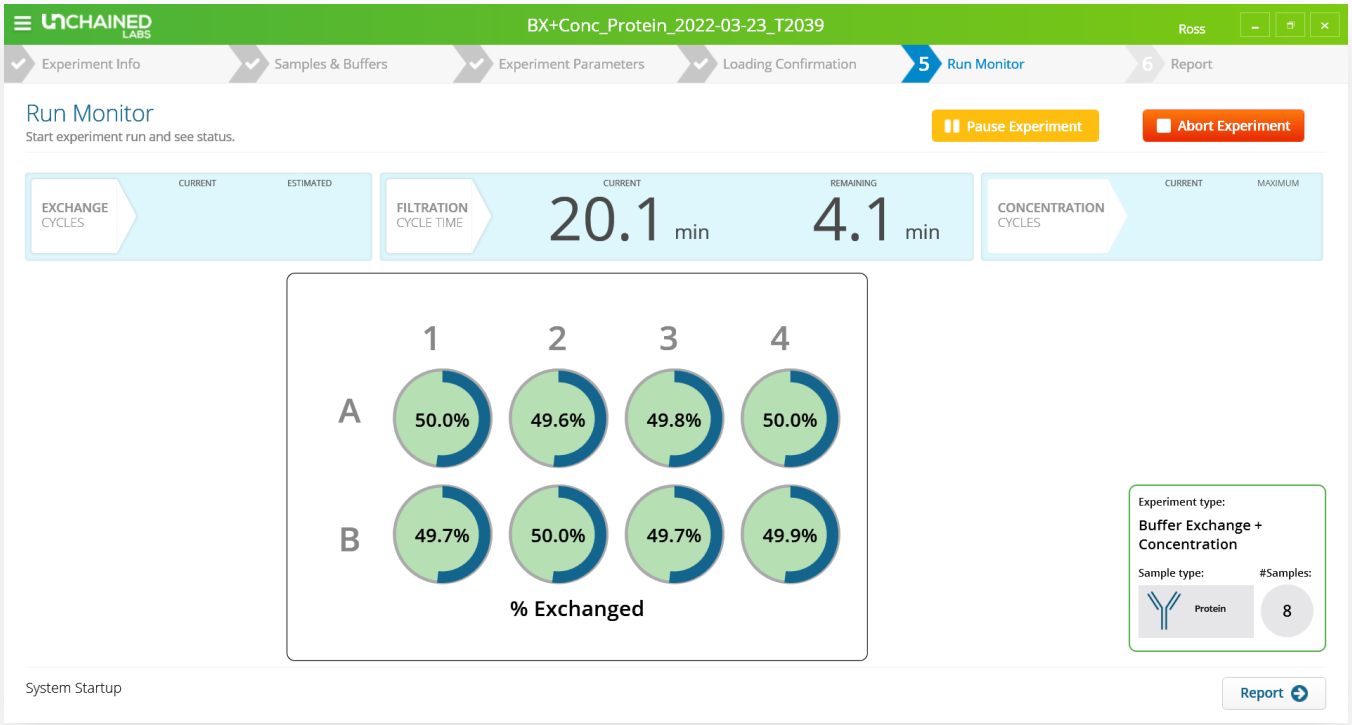
Get your fill

Now you just follow Unagi's step-by-step instructions. Load up the tray of Unas filled with your samples in the front. Fill Falcon tubes with your buffers and plop them in on the left. Throw some tip racks in on the right and Unagi is ready to go. No joke, it's that easy.



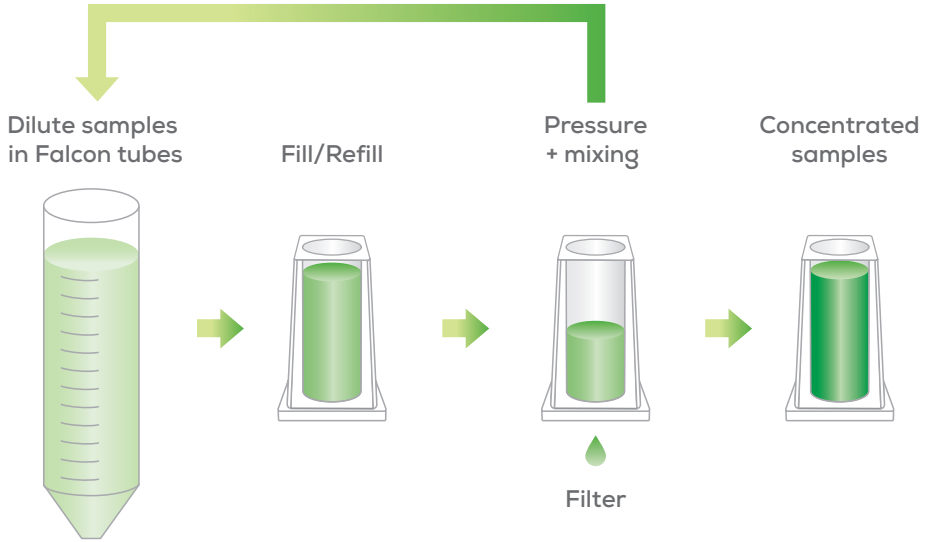
Let it roll

Hit start and let Unagi do its thing. Now you can walk away, but feel free to check on Unagi whenever you want. It's tracking the number of exchange cycles completed, provides info on the current filtration cycle, and displays the percent exchanged for each sample. If you're in a pinch, you can pause the run to take out samples that are done before the rest or keep it rolling. Either way, Unagi will tell you when it's a wrap.



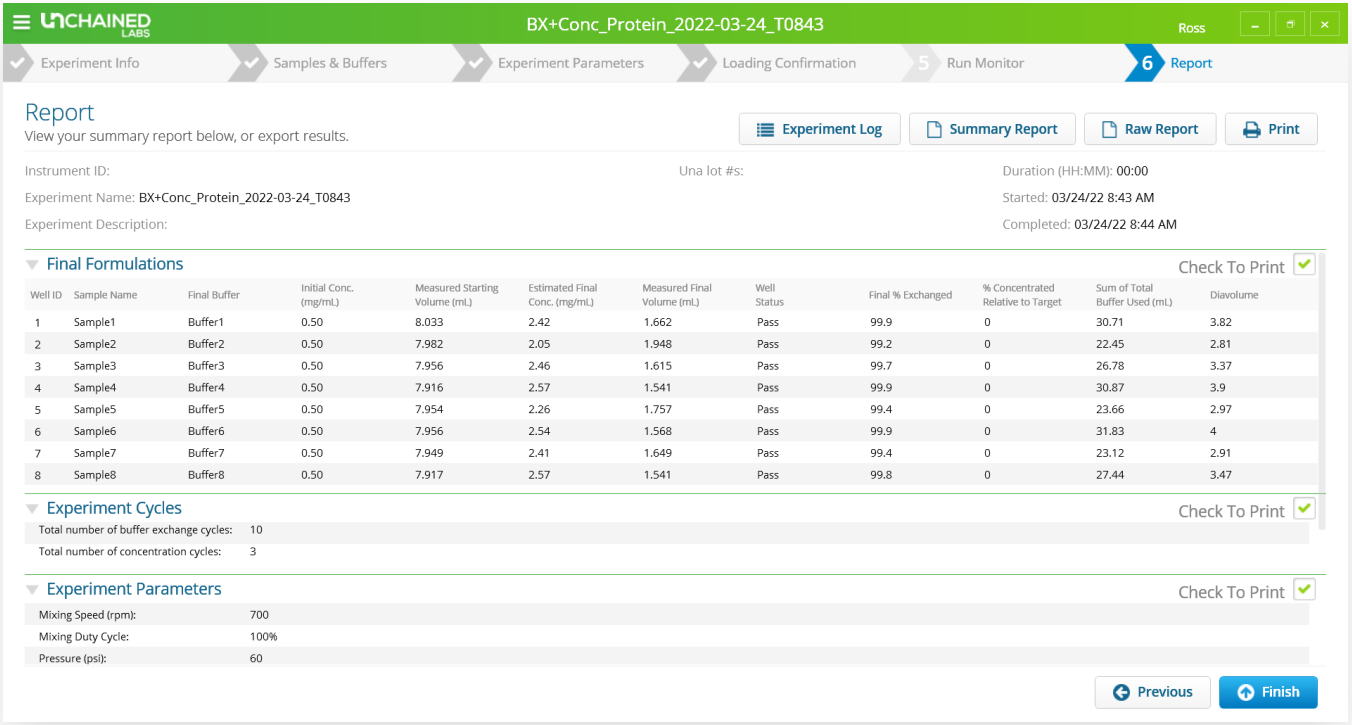
Take it down

Some samples are too dilute and need a little TLC. Unagi can concentrate these samples to a usable range. Choose the Reduce Sample Volume application and Unagi will concentrate up to eight dilute samples from 48 mL down to 8 mL in a single run. From there, you can follow up with a buffer exchange run or concentrate them further.



Get the check

Unagi tracks every single move it made and documents everything that happened during the run. It kicks out a detailed report of final volumes and concentrations, flow rates for every cycle, and the final percent exchanged for each sample. These reports can easily be placed in a lab notebook, uploaded to a LIMS, or hung on your refrigerator.



Specifications Menu

Application	
Buffer exchange volume range	0.5–8 mL
Formulations	Up to 8 formulations in parallel
Sample types	Antibodies and other proteins, nucleic acids, and AAVs
Exchange time at full volume (96%, at 10 mg/mL IgG)	4.5 hours*
Protein concentration (range)	Up to 200 mg/mL*
Target concentration accuracy	±10%*
Sample recovery	≥96%*
System	
Volume measurement	Ultrasonic sensor
Exchange pressures	15, 30 or 60 psi
Operating temperature	Room temperature
Buffer exchange orbital mixing	Optimized at 700 rpm Duty cycle programmable
Physical	63 cm W x 57 cm D x 66 cm H; 65 kg
Electrical	Voltage 100–260 VAC, 50–60 Hz
Nitrogen or CDA requirement	Pressure 0.55–0.9 MPa (80–130 psi) Flow rate 40 L/s (85 cfm) minimum
Consumables	
Una	10 kDa, regenerated cellulose
Disposable tips	1000 µL non-filtered, automatic re-use up to 12 times per exchange
Dispense precision	0.3–8 mL: ≤1%

*Sample and formulation dependent.

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Rev A