NEW NZ PROMOTION
FREE barcodes for digital gene expression assays

There is a simple alternative to RT-qPCR that not only performs better, it's cheaper too!
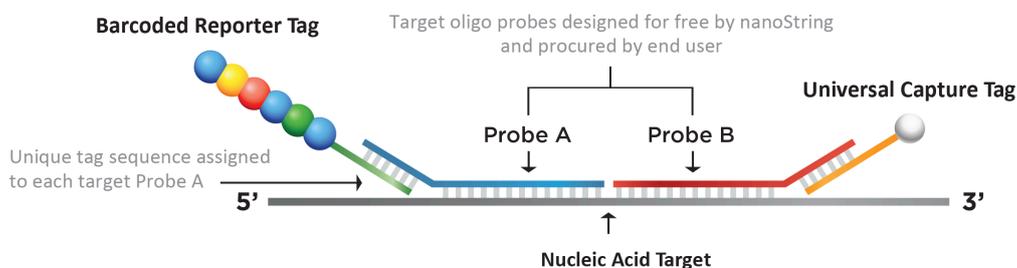
RT-PCR has never been easy, and most users struggle with:

- Irreproducibility due to RT-step issues or PCR inhibitors and dropouts
- The challenges of precision pipetting and sample splitting
- Spurious results from off-target amplification
- Fickle housekeeping (HK) gene normalisation
- Satisfying MIQE publication guidelines!

> Simple, robust, digital quantification of any mRNA from any species

NanoString as a genuinely better alternative

NanoString is unique: It simply counts molecules, one-by-one. You get pure digital counts from molecules in your sample. Unequalled precision means you'll see biology that the PCR will miss. Also, nanoString is not like Digital PCR, as no enzymes are used. A simple overnight hybridisation is all that's required to attach a molecular barcode to count. Automation takes over after that.

Barcoded Reporter Tag — Target oligo probes designed for free by nanoString and procured by end user — **Universal Capture Tag**

Unique tag sequence assigned to each target Probe A — 5' — Probe A — Probe B — 3'

Nucleic Acid Target

Just like the PCR, nanoString Elements™ chemistry (above) lets you target any sequence using only two standard oligos (The Elements manual can be downloaded at www.nanostring.com/download_file/view/365/3865).

I heard nanoString was expensive

No, not compared to RT-qPCR, mainly because all target genes, HK genes and +/- controls are measured simultaneously in a single tube, without the need for technical replicates:

Experiment	Experiment cost (with FREE barcodes)	Cost/Target* (Includes all controls)	RT-PCR Cost you need to Beat* (Includes no controls)
12-plex × 12 samples	$830	$5.77	<$1.92 /tech. rep.
24-plex × 12 samples	$830	$2.88	<$96¢ /tech. rep.

*Upfront cost of oligos (PCR primers and nanoString probes) is not included

Are nanoString assays sensitive?

Yes! NanoString can return the most data from the least amount of precious sample.

The practical Limit Of Quantification (LOQ) for a PCR is ~100 molecules/target/assay, so for 3 technical replicates you need ~300 molecules/target. The practical LOQ for nanoString is ~1,500 molecules/target/assay. But with more than just 4 targets nanoString uses less starting sample:

Target Number (plex)	Min. molecules/target (triplicate RT-PCR)	Min. molecules/target (nanoString single-tube multiplex)
1	300	1,500
2	600	1,500
4	1,200	1,500
12	3,600	1,500
24	7,200	1,500
800	240,000	1,500

Can I run less than 12-plex, or run a non-standard plex, such as 19-plex?
Yes, simply add oligos for as many target genes as you have; unused barcodes are ignored.

OK, so how do I start?

Simply email nanoString@bio-strategy.com and we'll get you started

The process we'll help you with is is simple, as follows:
- *Design your Assay*. NanoString's bioinformatics group will design your Assay for FREE. NanoString designs are always free; the process is consultative, and you receive a comprehensive design report. IMPORTANTLY: *NanoString Assay designs never fail*

- *Order your probes and run consumables*.

- *Run your Assays*. There are 26 nanoString nCounter® instruments around ANZ so plenty of choice. If you don't have ready access to an instrument we will help you find a Core Facility

How good is the data and how do I analyse it?
NanoString's pure digital data is 8× more precise than the best PCR assay and so much simpler to analyse and publish. You will discover biology that PCR assays will miss. It's also the very best way to validate your existing lab results. You can open result files and analyse the data with Excel or download *nSolver*™, nanoString's full-featured analysis software (it's FREE for Mac or PC).

Simply put, nanoString addresses all the shortcomings of RT-qPCR.
See for yourself what next-generation technology can do!

Free Elements barcodes offer ends June 30, 2019
Multiple orders for unlimited assays are allowed

QUESTIONS: Contact us at nanostring@bio-strategy.com

If you know anyone struggling with gene expression projects then please pass on this promotional offer: They will thank you when they see their digital results!