

Miami Cancer Institute Conducted Virology Research Using RNAdvance Viral



Beckman Coulter Life Sciences had the honor of interviewing Weiming Shen, MS, ASCP^{CM}, Manager of the Genomics Laboratory Service at Miami Cancer Institute, to discuss her team's progress with virology research.



During early 2020, Weiming Shen was conducting cancer genomic profiling and biomarker research as usual.

But when she started to notice the number of COVID-19 cases worldwide increasing drastically every day, she wondered if there

were something she could do to contribute. Weiming and her colleagues believed they had both the tools and knowledge necessary for supporting this effort. They decided to rapidly shift the focus of their work.

Recently, Weiming and her team completed RNA extraction validation independently using **RNAdvance Viral reagents from Beckman Coulter Life Sciences.**

RNA extraction is required to isolate COVID-19 viral RNA

for downstream genomic applications. When asked why Weiming initiated COVID-19 research using RNAdvance Viral, she conceded the reagents were not, in fact, her first choice. Still, she was in urgent



need of “an alternative RNA extraction solution due to an in-house kit shortage.”

Previous positive working experience with the Beckman Coulter Life Sciences Genomics team led her to reach out again to that team, which responded to her request immediately. To ensure a successful extraction evaluation, the Beckman team provided the reagents her team needed within 24 hours.

Weiming and her team first tested the RNA extraction efficiency of Beckman reagents using an RNA standard that was spiked into the viral transport media. The RNA extracted by RNAdvance Viral showed comparable Ct Values to their in-house kit, and is consistent with the RNA Standard control. RNAdvance Viral showed an analytical performance of about 1 copy/ μ L. Weiming's team also observed a consistently lower Ct when compared to the in-house RNA extraction kit (Ct average: 35.1 vs. 36.7).

She and her team performed an RNA comparison study using her downstream RT-PCR process against their other qualified kit. They were pleased to discover that RNAdvance Viral showed 100% concordance for all samples.

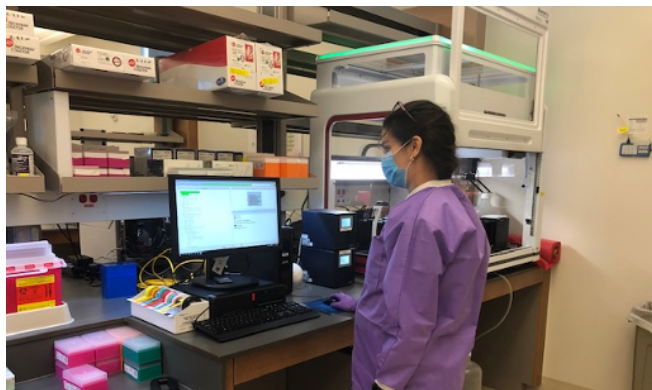
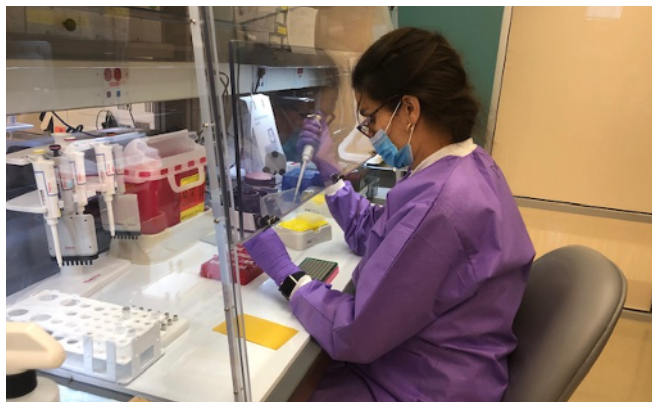
Given the continuing global shortage of many RNA extraction reagents due to current demand, seeing this successful result makes Weiming feel exceptionally confident using the RNAAdvance Viral as their alternative RNA extraction method for virology research. As she said, the most critical learning throughout this process is “It’s always good to be prepared with a backup plan.”

Virology research is vital in helping scientists fight the pandemic. With support from the Beckman team, Weiming and her team were able to complete the RNA extraction evaluation in less than one week.

Weiming was glad she reached out to the Beckman team because they are always committed, she says, “to (providing) fast technical support and reagents so quickly. Mostly, the willingness to help (the) customer in any way (they) can.”

Beckman Coulter Life Sciences is proud to be a small part of our customer’s fight against COVID-19. We appreciate that Weiming and her team took on the challenge to help allay some of the concern so many Americans have about this evolving pandemic.

She and her team are truly the real heroes of this story.



Dianelis Mondejar Alvarez in the purple gown is setting up RT-qPCR using Biomek i5.



Melanhy Da Silva and internal team members are getting ready to transport samples between Baptist Hospitals and Miami Cancer Institute for RNA extraction.



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AAG-706105.20