

# Customer Spotlight

## Miami Cancer Institute Conducted Virology Research Using RNAdvance Viral



Weiming Shen, MS, ASCPCM, Manager of the Genomics Laboratory Service at Miami Cancer Institute, shares insights on 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."

Having had a positive working experience with the Beckman Coulter Life Sciences genomics team in the past, she decided to contact them again. The team promptly addressed her request and ensured the necessary reagents for a successful extraction evaluation were delivered to her team 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 was consistent with the RNA standard control. RNAdvance Viral showed an analytical performance of about 1 copy/ $\mu$ 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.

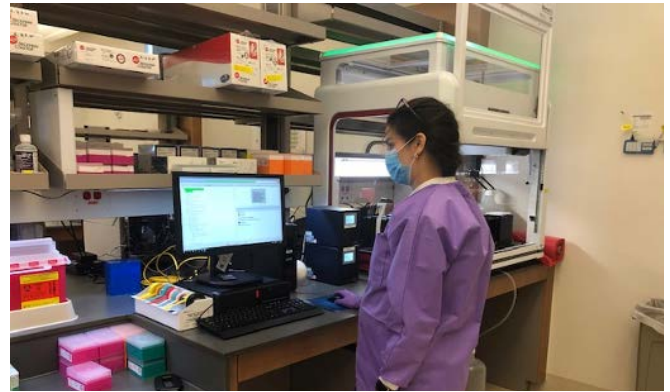
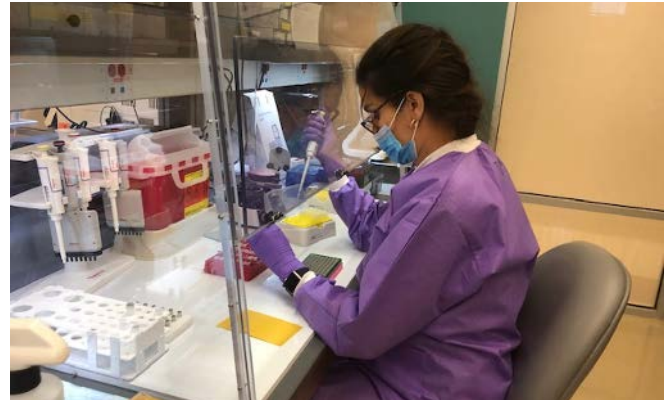
Given the continuing global shortage of many RNA extraction reagents due to current demand, seeing this successful result made Weiming feel exceptionally confident using the RNAdvance Viral as their alternative RNA extraction method for virology research. "It's always good to be prepared with a backup plan," she emphasized, highlighting the most important lesson from this process.

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

Weiming was glad she reached out 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 had about the evolving pandemic.

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



Dianelis Mondejar Alvarez sets up RT-qPCR using the Biomek i5 liquid handler.



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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