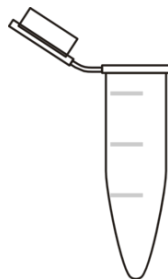

AutoQC enables efficient, reproducible LC-MS/MS chromatography and instrumentation

Ellen Casavant, PhD
Senior Scientist
Translational Medicine

Genentech biomarker mass spectrometry group mission and execution

MISSION

To transform mass spectrometry based discoveries into actionable insights and biomarkers that inform development and clinical decision-making



Systems suitability is necessary and important- AutoQC can help to automate this



LC challenges:

- Leaks
- Pressure
- Retention time drift
- Column failure
- Injection failure



MS challenges:

- Mass drift
- Ionization inefficiency
- Source drift
- Peak area consistency

- Traditional methods of QC make troubleshooting each of these aspects difficult, therefore making instrument maintenance and troubleshooting take weeks to months
- AutoQC can help!

AutoQC enables automatic search of data and longitudinal figure generation

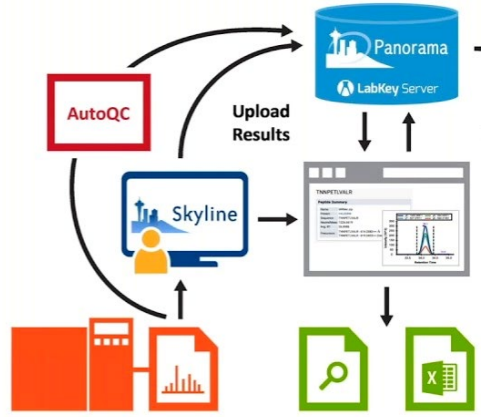
What is AutoQC?



+



Skyline/Panorama Workflow



9/21/2017

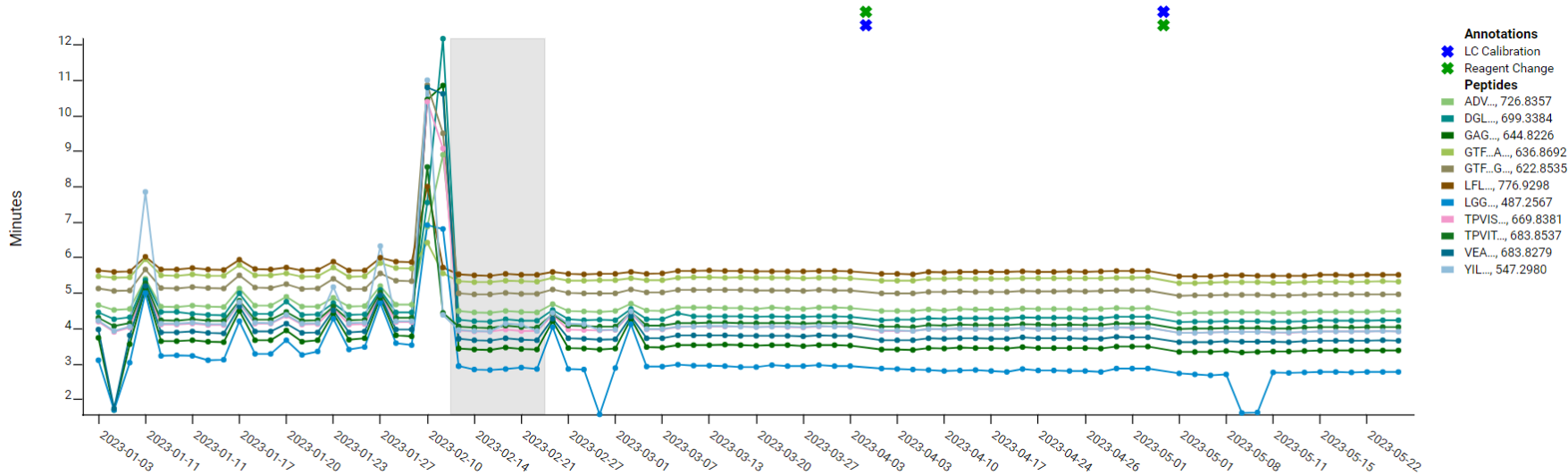
From: Introduction to Panorama, 2017

Panorama partners:

- A group of pharma and academia power users that support Panorama
- Meet with the developers and LabKey monthly to discuss feedback and troubleshooting
- Influence development plans

AutoQC enables easy instrument tracking and troubleshooting; reducing downtime and creating helpful reports for technicians

Retention time reporting



Extra AutoQC features:

- Set guidesets to observe drift
- Outliers summary to observe any drastic changes to instrument performance (with emails!)
- Annotation to report on LC calibration or column changes (or whatever you want)

AutoQC summary and future steps

- AutoQC enables automated tracking of standards to report beyond identifications
- AutoQC has sped up our time to troubleshoot and reduced downtime
- Large clinical runs can now be run with confidence due to this voluminous and easy reporting tool

Future steps:

- Use AutoQC and panorama to report on every DIA run (because iRTs are spiked in)
- Calendar view to understand at-a-glance how instruments perform over months and years

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Panorama Partners