

# MASS SPECTROMETRY AND SEPARATION SCIENCES DIVISION



During the October 1-2, 2015, AACC/MSSS conference in Chicago, AACC Past President Dr. Steven Wong asked the audience for their wish list of currently used clinical assays that should be moved to a mass spec platform, and also a list of late-stage translational assays that would best be performed via mass spec techniques. Most entries received a single vote, except where noted in parentheses.

## **Clinical**

PSA markers  
Ovarian cancer markers  
TSH/FT3/FT4 (2 votes)  
Testosterone/androgens (3 votes)  
17-OH progesterone (2 votes)  
Bloodstream infections  
Angiotensinogen  
Free testosterone  
Angiotensin  
Galectin-3  
NT-proBNP  
Antinuclear antibodies  
ANCA  
Estrone  
Cortisol  
Cortisol (salivary)  
Aldosterone  
Renin or renin activity  
Methylmalonic acid  
Cancer drugs (Busulfan) (2 votes)  
Vitamin D  
Metabolic disorder  
Drugs (digoxin, lithium, low therapeutic index drugs)  
Transferrin and TIBC  
Acetylcholine receptor  
Hemoglobin subtype estimation  
Urine albumin  
Monoclonal immunoglobulin  
Blood pH  
Thyroid autoantibody  
CD4, CD8, T cell count  
*M. tuberculosis*  
Antifungals (Voriconazole, Posaconazole)

THC-COOH in oral fluid  
DAU screening/confirmation for oral fluid – (2 votes)  
Synthetic cannabinoids  
Metabolites to compliment pharmacogenomics  
Markers normally delegated to flow cytometry (CD10, CD19, CD5, etc.)  
Markers normally delegated to IHC (cytokeratin, etc.)  
HLA typing (stem cell transplant)

**Late stage**

Renal metabolic indicators  
POCS  
Metabolic profile  
Lipidomics  
Interleukins  
Gluten sensitivity markers  
Protein biomarkers  
Cancer markers  
GI markers  
Protein drugs  
Pharmacodynamic biomarkers  
Drug resistance  
MALDI-TOF confirmatory test for samples  $\leq 2$ mmol bacteria

**OTHER ISSUES AND CONCERNS**

How do you get the right people for the new LC/MS/MS lab?  
High-level overview of growth industry for LC/MS/MS technology  
Troubleshooting for UM  
LDTs  
Mentors  
Coupling to other diagnostics modalities