

# Laboratory News

## Atlas Test Updates...

### **Effective on 01/06/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete MAYO test code HCYSU.

### **Effective on 01/18/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory temporarily turned off MAYO test code CHAG.

### **Effective on 01/20/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete MAYO test code GM1AB.

### **Effective on 02/04/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete OSF test code HSVNON and turned on MAYO test code HERPV.

### **Effective on 02/24/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off MAYO test code GALTZ, use MISC code GENOR (GALZ) until new MAYO code is built.
- 2) OSF HealthCare Saint Francis Medical Center Laboratory turned off MAYO test code FFMDS and turned on new MAYO test code MDSF.
- 3) OSF HealthCare Saint Francis Medical Center Laboratory turned off MAYO test code ACYLG and turned on new MAYO test code AGU20.
- 4) OSF HealthCare Saint Francis Medical Center Laboratory turned off MAYO test code FBCEL and turned on new MAYO test code CLLF.
- 5) OSF HealthCare Saint Francis Medical Center Laboratory turned off MAYO test code SHBG and turned on new MAYO code SHBG1.

### **Effective on 03/15/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete OSF test code CRYOG and turned on new MAYO test code CRGSP.
- 2) OSF HealthCare Saint Francis Medical Center Laboratory turned on new MAYO test code IMFXC.
- 3) OSF HealthCare Saint Francis Medical Center Laboratory turned on new MAYO test code DPYDG.

### **Effective on 03/18/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory updated specimen requirements for MAYO test code TVRNA.
- 2) OSF HealthCare Saint Francis Medical Center Laboratory updated specimen requirements for MAYO test code MTRNA.
- 3) OSF HealthCare Saint Francis Medical Center Laboratory updated specimen requirements for MAYO test code MCTGC.

### **Effective on 03/25/2021:**

- 1) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete MAYO test code CLLF and turned on new MAYO test code CLLDF.
- 2) OSF HealthCare Saint Francis Medical Center Laboratory turned off obsolete MAYO test code CLLF and turned on new MAYO test code CLLMF.

*"Change before you  
have to."*

- Jack Welch



## SFMC Outreach Atlas Application Specialist retiring

After many years of service with OSF HealthCare, with the last several with the OSF Laboratory Outreach team as an Atlas Application Specialist, Jeff Cover is retiring.

Jeff's last day with our SFMC Laboratory Outreach team is Friday, April 16th.

For any questions going forward, please contact either Ray Rosenberry or your Clinical Representative.

## Questions??

If you are an OSF Laboratory Outreach client and you have a billing-related question, please contact OSF's Patient Accounts and Access Center billing department at (309) 683-6750.

The PAAC billing agents will be happy to assist you with your inquiry.

If you have other questions, please contact OSF's Laboratory Customer Support department at (800) 533-6730 and they will direct you to the appropriate Laboratory Mission Partner.

## Specimen Requirements have changed for all SFMC Vancomycin testing...

Effective April 1st, serum from a red top specimen tube is the **only** acceptable specimen type for all Vancomycin testing at OSF HealthCare Saint Francis Medical Center Laboratory.

**LAB1700:** Vancomycin (VAN)

**LAB1701:** Vancomycin, Peak (RVANP)

**LAB1702:** Vancomycin, Trough (RVANT)

For any questions regarding this change, please contact your OSF Laboratory Clinical Representative.

## Specimen Requirements have changed for Riboflavin (Vitamin B<sub>2</sub>) at Mayo Clinic Laboratories...

Effective March 29th, Mayo Clinic Laboratories is requiring a specimen volume of 2 mL plasma from a dark green (Sodium Heparin) tube that has been protected from light.

**LAB2019:** Riboflavin (Vitamin B<sub>2</sub>) (Mayo code: VITB2)

### Collection Instructions:

- 1) Centrifuge within 2 hours of collection and aliquot to amber vial (to protect from light).
- 2) Specimen must be kept protected from light as soon as it is collected (and the tube is labelled with two patient identifiers). The specimen must also be protected from light during transport to the OSF Laboratory.

For any questions regarding this change, please contact your OSF Laboratory Clinical Representative.

## New SFMC Lab Outreach Clinical Representative...

On Monday, May 3rd, will have a new Outreach Clinical Representative joining their team!! Regina Rogers comes to us with many years' worth of clinical lab and leadership experience.

Let's all please give a warm welcome to Regina, as we here at OSF are so happy that she is joining our team.

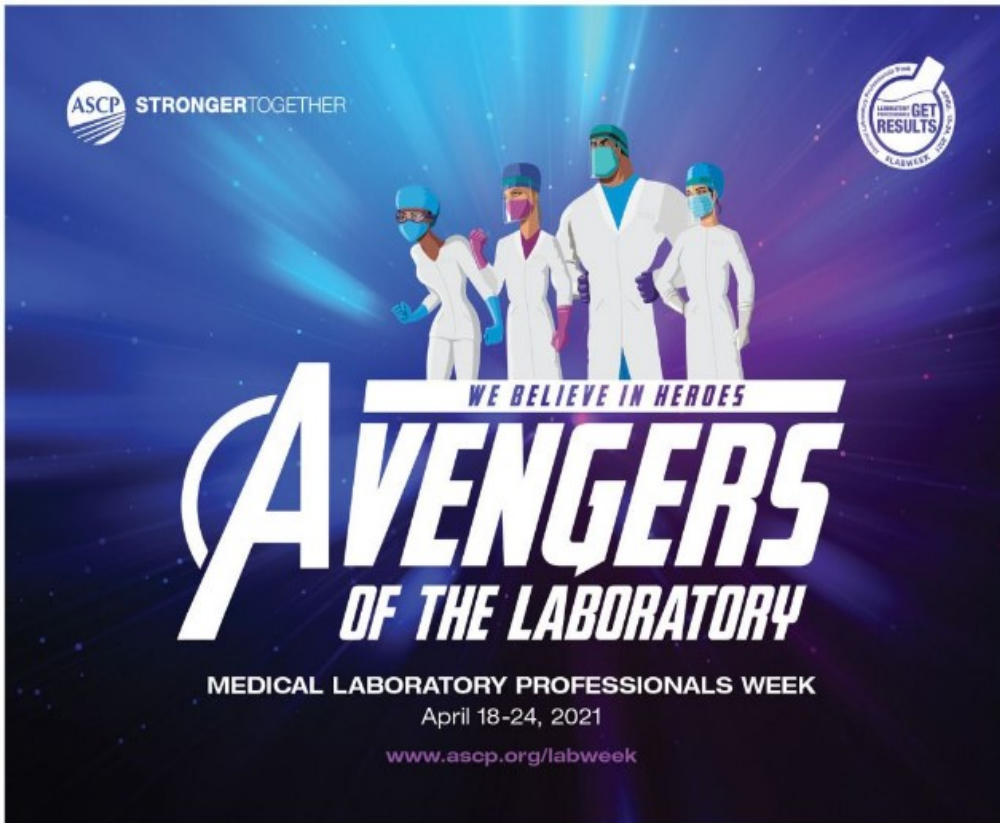


## Please join us in celebrating Nat'l Medical Laboratory Professionals Week...

It's that time of year!!! Please join OSF HealthCare in celebrating National Medical Laboratory Professionals week from April 18th through April 24th.

This year, the American Society for Clinical Pathology (ASCP) has chosen a superheroes theme for Lab Week in light of all of the amazing work that all of our Lab Professionals do every day!

We appreciate each and every one of our laboratory partners and clients; happy lab week all!! #labstrong



## Changes coming to some Mayo Clinic Laboratory neurological lab testing...

Effective May 11th, there are some changes coming to certain Mayo Clinic Laboratories neurological panel tests... The following antibodies have become obsolete and will be removed from the below listed neurological panels: AChR Ganglionic Neuronal AB (GANG), ACh Receptor (Muscle) Binding AB (ARBI), GAD65 AB (GD65S), Neuronal (V-G) K+ Channel AB (VGKC), Striational AB (STR), P/Q-Type Calcium Channel AB (CCPQ) and the N-type Calcium Channel AB (CCN).

The specific MCL neurological lab panels affected are:

- LAB2162:** Paraneoplastic, Autoantibody Evaluation, Serum (PAVAL)
- LAB1702:** Encephalopathy, Autoimmune Evaluation, Serum (ENS2)
- LAB6830:** Epilepsy, Autoimmune Evaluation, Serum (EPS2)
- LAB6832:** Dementia, Autoimmune Evaluation, Serum (DMS2)
- LAB2333:** Autoimmune Myelopathy Evaluation, Serum (MAS1)
- LAB2333:** Autoimmune Dysautonomia Evaluation, Serum (DYS2)
- LAB2333:** Movement Disorder, Autoimmune Evaluation, Serum (MDS2)
- LAB2333:** Pediatric Autoimmune CNS Disorders Evaluation, Serum (PCDES)

For any questions regarding these changes, please contact your OSF Laboratory Sendouts team or your Clinical Representative.

## Mayo's Myasthenia Gravis testing updates...

Mayo Clinic recently completed a four-year review of Myasthenia Gravis serum evaluations and will be implementing changes to our testing algorithm on May 11, 2021. Research findings are published in Neurology. Publication title: "[Improving accuracy of myasthenia gravis autoantibody testing by reflex algorithm](#)"; these changes go into effect on Monday, May 11th, 2021.

### Benefits...

Some of the benefits of changing the Mayo MG testing algorithm include:

- \* Increase in diagnostic specificity while maintaining high sensitivity; 90% sensitive, 95% specific
- \* Simplify patient test ordering
- \* Improves turn-around time for patient results

### Research Findings...

Some of the findings of Mayo's four year long review of their MG evaluation includes:

- \* Accuracy of MG serological testing is improved by reflexing acetylcholine-receptor binding (AChR-Bi) positive cases to acetylcholine-receptor modulating (AChR-Mo)
- \* Striational (STR) and other reflexed cancer evaluation autoantibodies (GAD65, Alpha-3, CRMP5, and VGKC) did not provide value beyond CT-chest imaging
- \* MG patients negative for AChR-Bi and AChR-Mo most often have muscle-specific receptor tyrosine kinase (MuSK) autoantibodies present

### Available MG orderable tests (as of 5/11/21):

- \* Myasthenia Gravis Evaluation w/MuSK reflex (**Test ID: MGMR**)
- \* Myasthenia Gravis/Lambert-Eaton Syndrome Eval., Serum (**Test ID: MGLE**)
- \* MGA1 and MGRM will become obsolete on May 10th, 2021

### New Mayo MG Algorithm...

Some of the most important highlights of the new Mayo MG algorithm include:

- \* Initial testing for AChR-Bi only (eliminates up-front testing for AChR-Mo & STR)
- \* Automatic reflex to AChR-Mo when AChR-Bi is positive to reduce false positives
- \* Automatic reflex to MUSK when AChR-Bi is negative
- \* The AChR-Mo assay method will change from a quantitative bioassay to qualitative FACS live CBA
- \* Eliminates reflex to "paraneoplastic" antibodies (GAD65, Alpha-3, CRMP5 & VGKC)

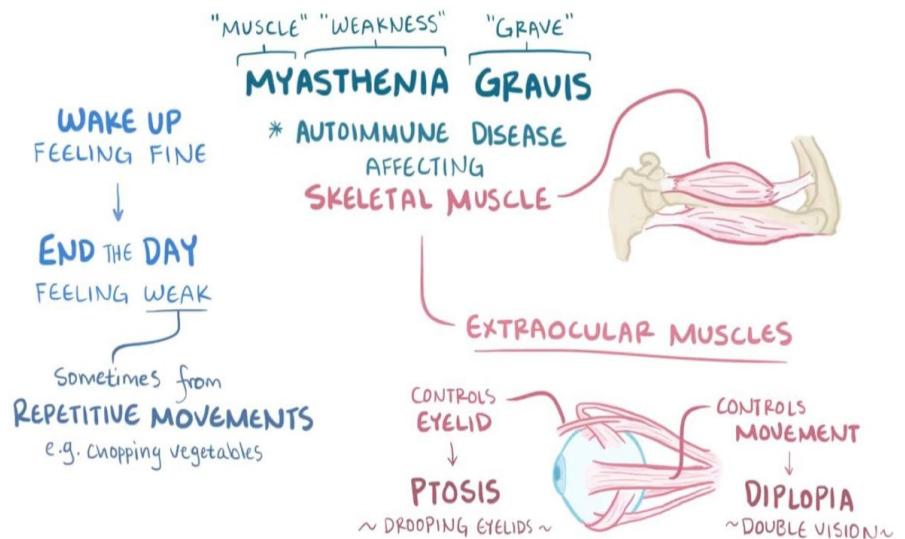
For any questions regarding this information, please contact your OSF HealthCare Laboratory Clinical Representative.

## Specimen changes coming for ANCA testing at SFMC...

Effective on Wednesday, April 28th, OSF HealthCare Laboratories' Anti-Neutrophil Cytoplasmic Antibodies with reflex to MPO PR3's specimen requirements will be changing slightly.

The testing will now require two full gold top and two specimen labels will print (for both Atlas and Epic). Also changing is the test's orderable ID; it is currently LAB1894, and it will change to LAB7154 on April 28th.

For any questions, please contact the OSF SFMC Laboratory Core department and ask to speak with the Lead Tech or contact your OSF Laboratory Clinical Representative.



# **OSF HealthCare & Mayo Clinic present a Spotlight on testing for Patients with Plasma Cell Disorders...**

OSF HEALTHCARE SAINT FRANCIS MEDICAL CENTER SYSTEM LABORATORY & MAYO CLINIC LABORATORIES

*By: Anthony Dal Santo at Mayo Clinic Laboratories*

When a patient presents with a monoclonal protein (M-protein) disorder, the answer is not always multiple myeloma. From the more common diagnosis of monoclonal gammopathy of undetermined significance (MGUS), to rarer findings such as amyloid light-chain (AL) amyloidosis or POEMS syndrome, it is becoming more recognized that plasma cell neoplasms are not just one disease, and they are characterized by marked protein, cytogenetic, molecular, and proliferative heterogeneity. Clinicians are increasingly challenged to provide answers in this rapidly changing environment. Advances in testing methodologies, novel therapies, and individualized treatment regimens continually add to the complexity of helping patients. Whether you're screening, diagnosing, or monitoring patients, Mayo offers leading-edge testing while keeping patient care local.

Mass spectrometry, coined "MASS-FIX," is a breakthrough technology in the screening and monitoring of plasma cell disorders, including both multiple myeloma and AL amyloidosis.

MASS-FIX is now included in International Myeloma Working Group recommendations as an accepted method of screening for M-proteins: <https://www.nature.com/articles/s41408-021-00408-4>

By weighing M-proteins, MASS-FIX overcomes immunofixation's limitations in detection and provides the most accurate understanding of a patient's M-proteins. This novel testing also helps health care providers understand their patients' risk of progression to multiple myeloma or AL amyloidosis. This level of insight is not possible via traditional testing methods.

The increased metrics of MASS-FIX allow for earlier disease identification and risk stratification. Paired with a plasma cell optimized MRD platform, MASS-FIX has been shown to assist in providing an improved understanding of patient prognostication. Patients who achieve a "dual negative" state (MRD and MASS-FIX negative) have been associated with improved outcomes.

Mayo Clinic is the only laboratory to offer this MASS-FIX patented methodology.

⇒ Hematologists will get a deeper understanding and accurate differentiation of a patient's M-spike by separating out the drug interference (please see below diagram)

- \* *10 times more sensitive and specific, which allows for improved understanding of patient prognostication*
- \* *Studies have shown that patients who achieve dual negativity (blood and bone marrow) are associated with improved outcomes*
- \* *In conjunction with MASS-FIX on blood samples, Mayo offers EuroFlow with a 10(-5) sensitivity for MM with MRDMM that meets all MRD testing guidelines for bone marrow*

⇒ Prognostic Assessment – studies have shown that patients with glycosylated light chains assessment of patients progressing from MGUS to MM or AL amyloidosis

⇒ The test provides a very significant risk factor analysis for amyloidosis

⇒ Blood sample

⇒ 1-2 day turnaround time

⇒ Improved reimbursement over traditional methods

⇒ MASS-FIX can simply be added on to the testing that is already being performed at OSF

Link to MASS-FIX website and interview with Mayo Clinic's David Murray, M.D., Ph.D.:

<https://news.mayocliniclabs.com/2021/02/02/mass-fix-a-test-in-focus/>

Here are links to two additional articles that may be of interest. The first describes the impact of dual negativity by both bone marrow NGS flow cytometry and mass spectrometry (MS). The second link is to an article describing the use of mass spectrometry to gain improved understanding of patients who are at higher risk of transitioning from MGUS or at increased risk of AL amyloidosis.

- 1) Implications of detecting serum monoclonal protein by MASS-FIX following stem cell transplantation in multiple myeloma. Br J Haematol (2021): <https://doi.org/10.1111/bjh.17195>
- 2) N-glycosylation of monoclonal light chains on routine MASS-FIX testing is a risk factor for MGUS progression. Leukemia 34, 2749–2753 (2020): <https://doi.org/10.1038/s41375-020-0940-8>

<sup>1</sup> Dispenzieri A, Larson DR, Rajkumar SV, Kyle RA, Kumar SK, Kourelis T, Arendt B, Willrich M, Dasari S, Murray D. N-glycosylation of monoclonal light chains on routine MASS-FIX testing is a risk factor for MGUS progression. Leukemia. 2020 Oct;34(10):2749-2753.

<sup>2</sup> Abeykoon JP, Murray DL, Murray I, et al. Implications of detecting serum monoclonal protein by MASS-FIX following stem cell transplantation in multiple myeloma. Br J Haematol. 2020 Nov.

<sup>3</sup> JR, Kohlhagen MC, Willrich MAV, et al. A universal solution for eliminating false positives in myeloma due to therapeutic monoclonal antibody interference. Blood. 2018 Aug;132(6):670-672.

<sup>4</sup> Abeykoon JP, Murray DL, Murray I, et al. Implications of detecting serum monoclonal protein by MASS-FIX following stem cell transplantation in multiple myeloma. Br J Haematol. 2020 Nov.

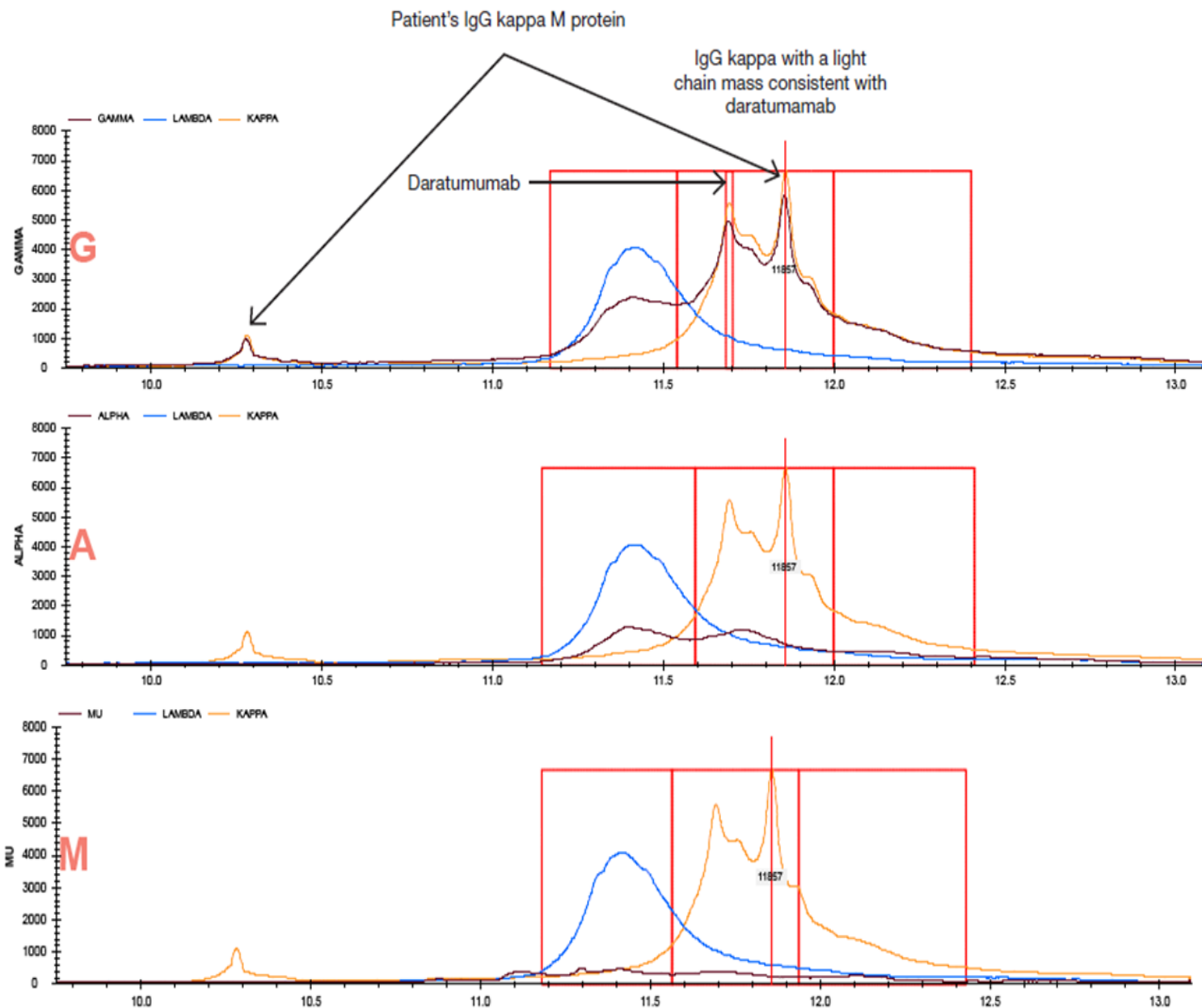
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## Providing a Complete Picture...

Using MASS-FIX methodology provides a deeper understanding and accurate differentiation of a patient's M-spike from monoclonal therapeutic interference from drugs like daratumumab, as illustrated in the example below.



Mayo Clinic Laboratories is excited to invite you to attend a "lunch and learn" educational session with David Murray, M.D., Ph.D. on April 29th, 2021 at noon (12:00 pm Central Time—US and Canada).

Dr. Murray will discuss the significant advantages MASS-FIX offers over traditional testing methods and also answer any of your questions in our open Q&A forum. If you are interested, please register in advance for this webinar: [https://mc-meet.zoom.us/webinar/register/WN\\_CFsgFW4RMe9fJOzPBuCSQ](https://mc-meet.zoom.us/webinar/register/WN_CFsgFW4RMe9fJOzPBuCSQ).

For any questions regarding this information, please reach out to your OSF HealthCare Laboratory Outreach Clinical Representatives.