



# Houston Forensic Science Center

## INTEROFFICE MEMO

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**To:** Haley Melbourn, M.S., Forensic Scientist – Toxicology

**From:** Melissa Henry, D-ABFT-FT, Supervisor – Toxicology

**cc:** Dayong Lee, Ph.D, F-ABFT, Manager – Toxicology  
Quality Division

**Date:** April 28, 2022

**Re:** Authorizations of Drug Screening by Enzyme-Linked Immunosorbent Assay (ELISA)

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This memo authorizes Ms. Melbourn to perform drug screening and write test reports for casework in the Toxicology section using the following method:

- Enzyme-Linked Immunosorbent Assay (ELISA)

This authorization is based upon her successful completion of

1. Required readings on February 11, 2022 and study questions on March 25, 2022 as outlined in sections 8 and 20 of the Toxicology Training Manual v3.7.
2. Laboratory exercises completed on March 21, 2022 that included:
  - a. training Batches EIA\_20220120B\_HM, EIA\_20220121B\_HM, EIA\_20220126B\_HM, EIA\_20220127B\_HM, EIA\_20220127U\_HM, and EIA\_20220128U\_HM
  - b. observance of 5 ELISA case reports on January 24, 2022 and drafting of 5 case reports on March 21, 2022;
3. Competency test completed on April 18, 2022.
4. Oral examination on April 21, 2022.
5. EIA Testimony Q & A session and mock trial on April 19, 2022 and April 20, 2022 respectively.

Ms. Melbourn's competency test included analysis of 3 urine samples fortified with drugs at different concentrations and 2 cases that were negative (2021-00087, 2021-00088, 2021-00089, 2021-00090, and 2021-00091) in the development JusticeTrax system. Urine was used as the competency matrix because typically urine reports for casework will be written after ELISA analysis, whereas blood casework will have further analysis. Analytical processes for urine and blood samples are comparable. Ms. Melbourn's competency of performing blood ELISA analysis has been demonstrated via her laboratory exercises using blood samples.

Ms. Melbourn has been authorized to use the equipment associated with the ELISA analysis. This equipment includes but is not limited to: Tecan workstations, balances, pipettes, pH meter, and Millipore Water System.