## **NOVEMBER 20, 2014**

## Happy Thanksgiving!

All of us at Chemtos greatly appreciate and value your continued support and consideration – Thank you!

Last guarter I discussed concentration dependent stability of solutions of metabolites that degrade by hydrolysis.

Here, I would like to take this opportunity to share a recent synthetic chemistry achievement!

As communicated previously, we have been continuing to expand our expertise in synthesis and isolation of polar compounds at high purity levels, a number of which did not have adequate UV absorption for UV HPLC detection/analysis. Recently, we were able to synthesize and isolate Taurultam-d<sub>3</sub> at high purity level. Taurultam and Taurinamide are major metabolites of Taurolidine. Taurultam is somewhat unstable and easily hydrolyses to Taurinamide. Due to its ease of degradation/conversion to Taurinamide, isolation of Taurultam at high purity levels was a significant challenge. We did not find any published literature precedent for its synthesis and isolation. After significant R&D effort, we were able to develop a novel route for the synthesis and isolation of Taurultam-d<sub>3</sub> and Taurinamide-d<sub>3</sub> at high purity levels.

Other polar metabolite compounds that we have recently synthesized and isolated at high purity levels include Xanthine- $^{13}$ C,  $^{15}$ N<sub>2</sub>, Hypoxanthine- $^{13}$ C,  $^{15}$ N<sub>2</sub>, Dabigatran-acyl-glucuronide (>99% pure as mix of isomers), Naproxen-acyl-1-beta-D-glucuronide, Liothyronine(T3)-acyl-glucuronide, Liothyronine(T3)-sulfate, Pyridoxal-d<sub>3</sub>-phosphate, Pyridoxine-phosphate, Hydroxy-melatonin-sulfate (& -d<sub>4</sub>), and numerous O-glucuronides including Androsterone-O-glucuronide and Naloxone-O-glucuronide.

Additional reference standards that we have in-stock are listed on our <u>website catalog</u>. If you are looking for a particular compound we have not listed, please contact us - we can often quickly procure or synthesize those that we do not have in-stock using advanced intermediates that we have.

Our standard practice is to place a one year recertification date in a comprehensive Certificate of Analysis (CoA) that includes all supporting analytical data (HPLC, LCMS, NMR) freshly obtained from the batch/container that is shipped. This does entail us a cost overhead for each shipment, but provides guarantee and assurance that the high purity values of the compound listed in the CoA are accurate and enables compliance with regulatory requirements.

Please do let me know if I can answer any questions or if we can be of assistance.

Best Regards, Khalid

## **Khalid Thakur**



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