Critical Method Review

“The Curious Case of Thiotimoline and a Public Health Outbreak”

Dr. Russell Grant

Laboratory Corporation of America, Inc.

Method Example Provided by Dr. Bob Kobelski, CDC
"Thiotimoline" a Molecule developed by the Author “Isaac Asimov” in 1948

"The Endochronic Properties of Resublimated Thiotimoline" in 1948
“Dissolves 1.12 seconds before the water was added “catechol dissolve at the water boundary – Asimov’s Biochem Thesis”

"The Micropsychiatric Applications of Thiotimoline“ in 1952
“A quantitative classification of "certain mental disorders" – dissolution rate is a function of the # of personalities of the test subject.”

"Thiotimoline and the Space Age" in 1959
"Chronochemistry” batteries to predict success of USSR Satellite Launches”
Unable to prove “Heisenberg Failure” to get a sample of thiotimoline to dissolve without later adding water to it – each time nature intervened…whatever man decided.

“Thiotimoline to the Stars” in 1973
“Theory of hypersteric hindrance and endochronic molecules into polymers. Spaceships built out of endochronic materials will travel into the future in search of water to interact with”.

"And Silently Vanish Away" Glenn Beaver 1971
When the substance is injected into lab rats they start to silently and suddenly vanish.

"Antithiotimoline" Topi H. Barr 1977
“Thiotimoline-like compound which extrudes only into the past, enabling the scientist to create images of past events.” The narrator complains that thiotimoline is extremely difficult to obtain, and suspects that the CIA or other agencies are controlling the supply for their own reasons.

Analysis of Thiotimoline by Isotope Dilution LC-MS/MS

Sample Preparation
Acid hydrolysis of glycoside
SPE clean-up Waters HLB – 3 cc cartridge
   2 mL MeOH wash
   2 mL H₂O wash
   Apply 500 uL sample
   Add 50 uL ISTD
   2 mL 5% MeOH Wash
   1 mL Elute 100% MeOH
   Evaporate to dryness
   Reconstitute in 100 uL MeOH

HPLC  Column: Phenomenex Kinetex™ C18 100 Å LC Column 50 x 2.1 mm x 2.6 µm
Eluent A: Water + 0.5% formic acid
Eluent B: Methanol + 0.5% formic acid
Flow: 0.10 mL/min
Gradient:
   0.0  50% B
   1.0  50%B
   3.0  75%B
   4.0  75%B
   5.0  50%B
   6.0  50%B

MS/MS  Negative ESI
SRM
   Quantification: 511.1-477.1
   Qual 1: 511.1 – 80.5 (54%)
   Qual 2: 511-1 – 324.3 (64%)