7th World Congress on

Mass Spectrometry

June 20-22, 2018 | Rome, Italy

Steven J Soldin

National Institutes of Health, USA

The role of mass spectrometry in improving the diagnosis and management of thyroid disease

This talk will focus on how mass spectrometry improves both diagnosis and treatment of patients with hypothyroidism (20 million in the USA). We will discuss current problems with immunoassays for thyroid testing which frequently lead to the wrong diagnosis and poor patient management. In contrast the diagnosis of hypothyroidism is more reliable utilizing UF LCMS/MS (ultra-filtration tandem mass spectrometry) for the measurement of FT4, FT3, TT3 and TT4. The suboptimal current role of the FDA in licensing inaccurate and unreliable immunoassay methods and the approaches of the AACC and IFCC to harmonize immunoassay platforms with reference LCMS/MS methods will be critiqued. Finally evidence of poor performance of thyroid-stimulating hormone (TSH) tests in predicting thyroid disease will be discussed.

Biography

Steven J Soldin has obtained his PhD in Biochemistry at the University of the Witwatersrand in Johannesburg, SA. After a Postdoctoral year at the University of Toronto he enrolled in a Clinical Biochemistry program at that University, obtained his Diploma in Clinical Biochemistry and was boarded in this discipline in both Canada and the USA. He has been a tenured Professor at both the University of Toronto and the George Washington University School of Medicine. He is currently Senior Scientist in the Department of Laboratory Medicine at the National Institutes of Health, Bethesda, USA. He has published 275 papers in peer reviewed journals and has many patents.

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Notes:

Chromatography & Separation Techniques
ISSN: 2157-7064

Euro Mass Spectrometry 2018
June 20-22, 2018

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