

## Nano Pharmaceutical 2019: Synthesis of porphyrins bearing trans-thiols: A good perspective in nanotechnology- Raymond C Jagessar- University of Guyana, Guyana

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### Abstract

There are several interesting reports on the electrical properties of meso-substituted porphyrins. Meso-substituted porphyrins electrical properties can be modulated through various meso-substituted patterns and the use of the type of metal in porphyrin metal complexation. This class of compounds has yielded interesting results in the nanopore arena or embodiment. Thus, their availability via high yielding synthesis is necessary. Hence, a route to porphyrins bearing trans-thiols is described in this lecture. The synthesis involves a thioacetyl containing aldehyde or a thioacetyl containing dipyrromethane in the presence of catalytic  $\text{BF}_3 \cdot \text{OEt}_2$  followed by oxidation. Metal complexation and ammonium hydroxide induced acetyl removal to provide a route to these important molecular systems for future electronics experiments in which the thiols would serve as the adhesion points to gold probes.

### Biography :

Raymond C Jagessar obtained his BSc (Distinction) in Chemistry/Biology from the University of Guyana (1992) and his Ph.D. from the UK (1995). He held three Post-Doctoral Research Fellowships (PDF) at various universities overseas. He has also won several international awards, amongst them are Chartered Chemist, CChem and Fellow of the Royal Society of Chemistry, FRSC, UK, Research and traveling Grants etc. His research interests are broad, covering the spectrum of Pure and Applied Chemistry, Chemical Biology and Pharmaceutical Chemistry. He has published over eighty (80) research articles, five book chapters and presented at conferences: locally and internationally. He is currently Professor in Chemistry at the University of Guyana (South America).

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