Contribution ID : **136** Type : **Oral**

Impact of Pancratistatin on model mitochondrial membranes

Monday, 2 December 2019 10:00 (30)

Pancratistatin (PST) is a natural compound found in the spider lily, native to the Amaryllidaceae plant family. PST has been shown to selectively eliminate human cancer cells with minimal/no toxic consequences on normal cells. Unfortunately, PST lacks appearances in clinical trials due to its low natural abundance. Recently, PST analogues have been synthesized and have demonstrated anticancer activity on various types of cancer cells. Studies have strongly suggested that PST interacts with the lipids in the mitochondria membrane of cancer cells, causing cell death. However, a precise mechanism of how PST impacts the mitochondria, ultimately eliminating cancer cells, remains unknown. We combine Neutron Spin-Echo (NSE) and small angle scattering techniques to determine PST's influence on the structure and membrane bending dynamics of mitochondrial model membranes. The goal of this research is to understand how PST interacts with the mitochondria by uncovering structural and dynamic information of how PST influences the mitochondrial membranes of cancer cells

Speakers Gender

Male

Travel Funding

No

Level of Expertise

Expert

Do yo wish to take part in the poster slam

No

Primary author(s) : Dr MARQUARDT, Drew (Drew Marquardt)

Presenter(s) : Dr MARQUARDT, Drew (Drew Marquardt)

Session Classification : Plenary

Track Classification : Chemistry and crystallography