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## **(G\*) Vesicle Viewer: Online visualization and analysis of small-angle scattering from lipid vesicles**

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Large volumes of complex experimental data require time, expertise, and equally complex tools to process. This creates a barrier, where experienced researchers and new students alike lack the resources required to maximize the utility of their results. Vesicle Viewer is a free online tool designed to break down those barriers, and assist researchers at all levels in processing critical information contained in small-angle scattering (SAS) data.

Small-angle X-ray and neutron scattering are among the most powerful experimental techniques for investigating the structure of biological membranes. Vesicle Viewer utilizes a modified scattering density profile (SDP) analysis called EZ-SDP in which key bilayer structural parameters, such as area per lipid and bilayer thickness, are easily and robustly determined. Notably, included is a model able to describe an asymmetric bilayer, whether it be chemically or isotopically asymmetric.

Through the strategic application of well-established python libraries, this easy-to-use data visualization tool can allow researchers at any level to take full advantage of their SAS data and maximize the use of limited resources.

Find this web-based application, available for anyone to use, here: <https://vesicleviewer.dmarquardt.ca/>.

**Author:** LAURENT, Aislyn

**Co-authors:** DOKTOROVA, Milka (University of Virginia School of Medicine); Mr HEBERLE, Fred (University of Tennessee, Knoxville); MARQUARDT, Drew

**Presenter:** LAURENT, Aislyn

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