



## THE SCRIPPS RESEARCH INSTITUTE

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SANDRA L. SCHMID, Ph.D.

Professor & Chairman

DEPARTMENT OF CELL BIOLOGY

Dear Claire:

We are pleased to submit our manuscript, entitled "Supported bilayers with excess membrane reservoir: Templates to study membrane remodeling and fission" for your consideration.

We describe the generation and application of a novel membrane template that facilitates reconstitution of membrane trafficking events. Reconstitution of membrane trafficking pathways using purified membranes or synthetic liposomes has largely contributed to our understanding of the mechanisms underlying these cellular processes. However, quantitative approaches and tools that allow real-time visualization of these events are limited. In the field of membrane fission a suitable membrane template for reconstitution has been lacking. Therefore we developed a system based on supported bilayers in which a membrane of specific lipid composition is deposited onto a silica bead in a way as to incorporate excess membrane reservoir available for budding events.

We used SUPER templates initially to characterize dynamin mediated fission in vitro. However, we believe that these templates will be a valuable tool to study protein-membrane interactions and to address a variety of questions. Due to their different properties and handling compared to other membrane templates, we are excited about the opportunity to publish in JoVE's unique format.

As potential referees, we would like to suggest:

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|--------------------|---|
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Thank you for your consideration.

Sincerely yours

Sylvia Neumann and Sandra L. Schmid