Duke Krios Cryo-TEM Project Request Submission Form

Please email completed form to: krios@duke.edu

User Name(s): _____ Institution: _____

PI Name: _____ Date: _____

Project Title: _____

Estimated total number of samples to image for this project: _____

Estimated number of images to acquire per sample: _____

Number of anticipated Krios measurement sessions: _____

Note: Only non-hazardous and non-infectious samples will be imaged on the Krios

A) Please provide the following information about the sample(s) and goals for the Krios imaging

a. Sample Description: _____
b. Molecular Weight: _____
c. Symmetry: _____
d. Number of conformations: _____
e. Target Resolution: _____

Provide any additional information that would be helpful in the text box below:

Insert text here

B) Please provide the following for the project (may be multiple samples, multiple sessions):

1) A low magnification cryo EM montage (atlas) of the specimen/s to be imaged or of a specimen obtained using similar preparation conditions shown previously to behave analogously in cryo conditions (e.g. the same protein in complex with different ligands, point mutations of same protein).
2) Two low magnification cryo EM images showing the ice distribution on an entire grid square from the specimen in #1, above.
3) Two intermediate magnification images (~1 nm pixel size) of the areas deemed adequate for data collection from the specimen indicated in #1, above.
4) One or more representative high magnification images of a field of view on the specimen indicated in #1, above, at under-focused values between 1-3um.
5) Images identifying the particles selected from the corresponding micrographs provided in from the specimen indicated in #4, above.
6) 2D class averages or a preliminary 3D reconstruction. Please identify or describe the sample that was used to produce the 2D classes or 3D reconstruction.

Notes:

1) The biochemical characterization of the sample to be imaged is highly desirable. This should include at least a gel filtration profile and a stained denaturing gel electrophoresis analysis of the sample. Addition of a non-denaturing electrophoretic run (native gel) is recommended. Applicants are encouraged to submit negative stain analysis of the same specimen, if available.
2) For new projects where a 3D reconstruction from cryo-EM data is not yet available, only a single measurement session will be initially approved. If different samples are being imaged, users should provide data for #4 and #5 for each of the samples.

If any of the above conditions are difficult to obtain, please email krios@duke.edu to discuss.