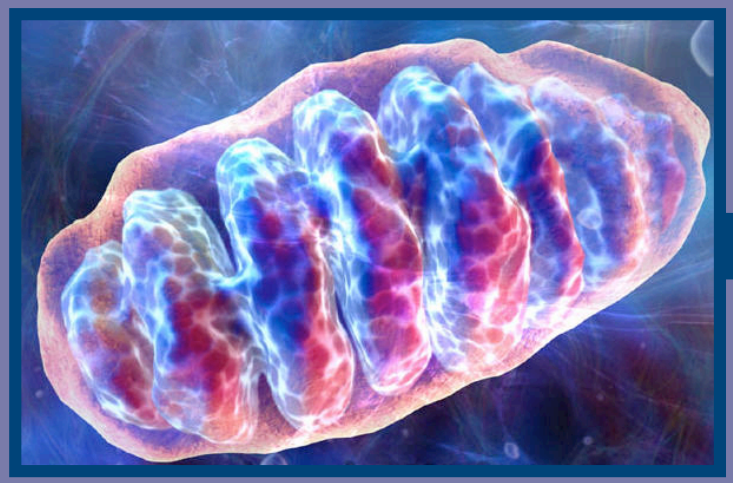
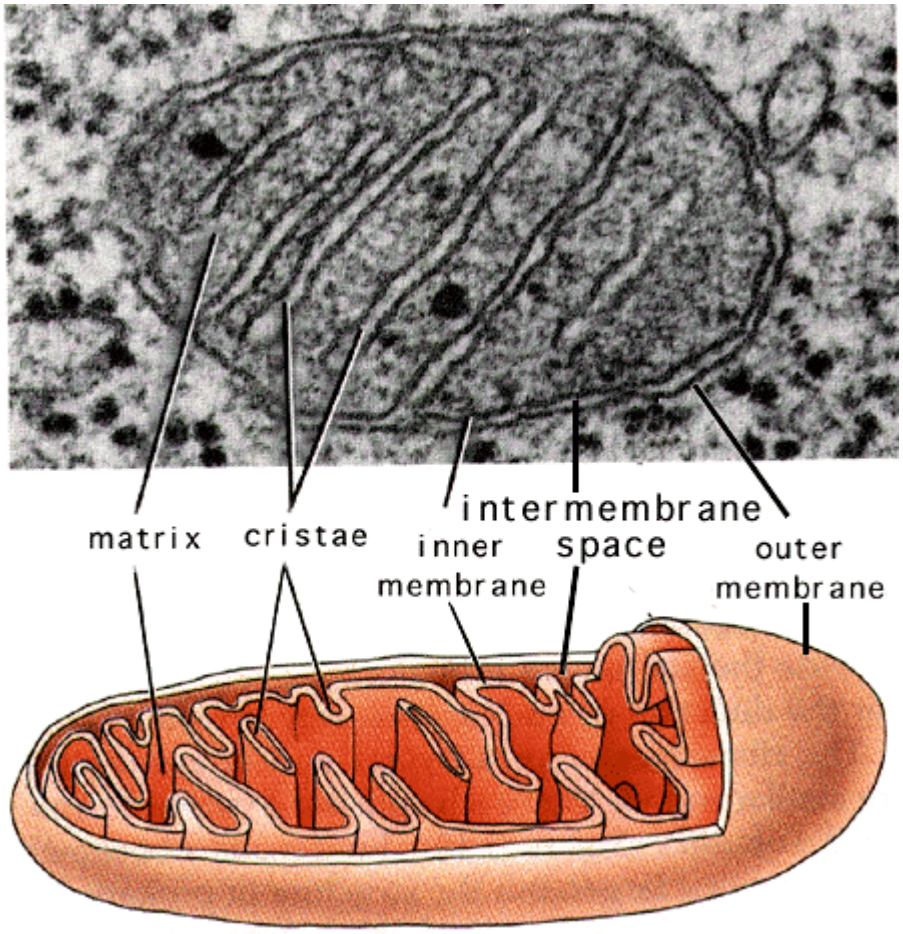
A Minimal Peptide Sequence That Targets Fluorescent and Functional Proteins into the Mitochondrial Intermembrane Space



Amir H. Faraji

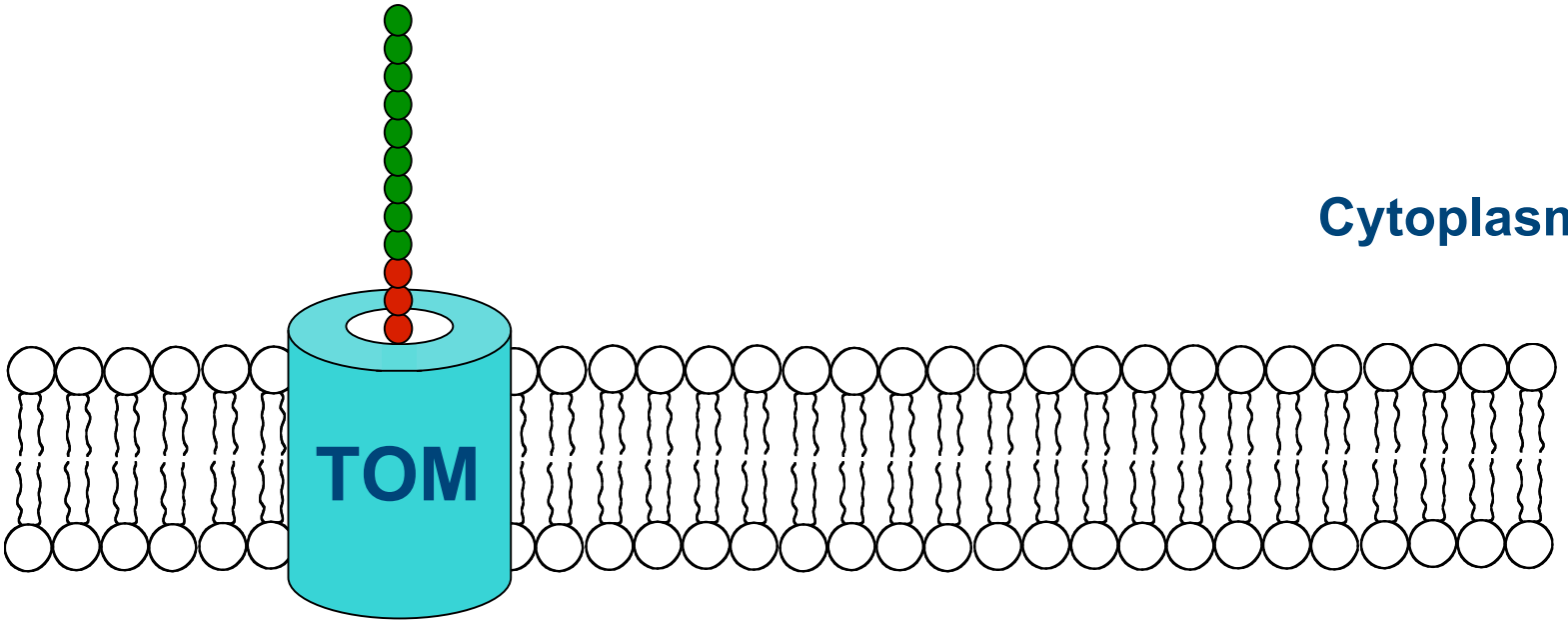
October 27, 2007

Mitochondrial Anatomy



http://www.life.uiuc.edu/crofts/bioph354/lect10.html

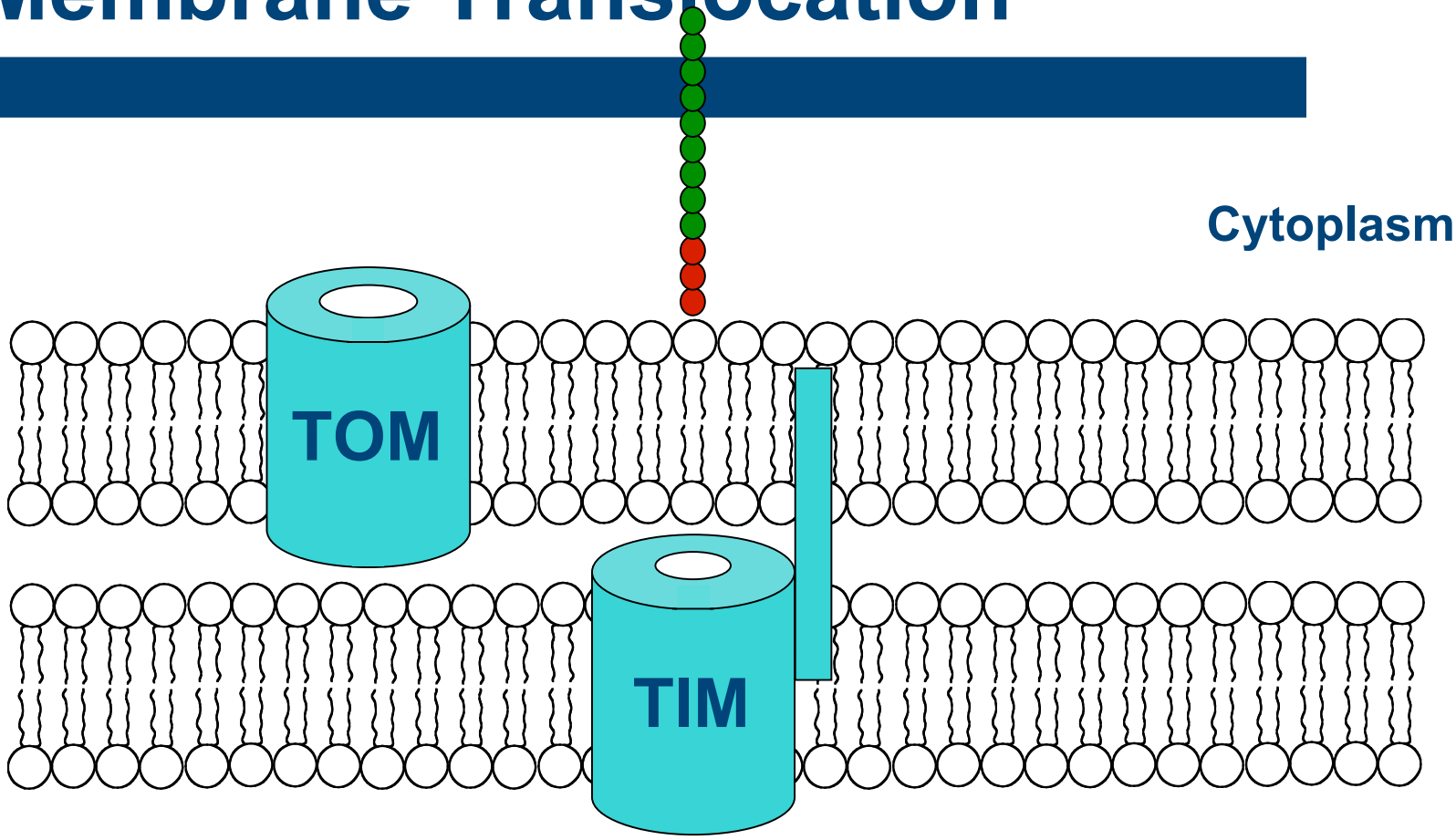
Membrane Translocation



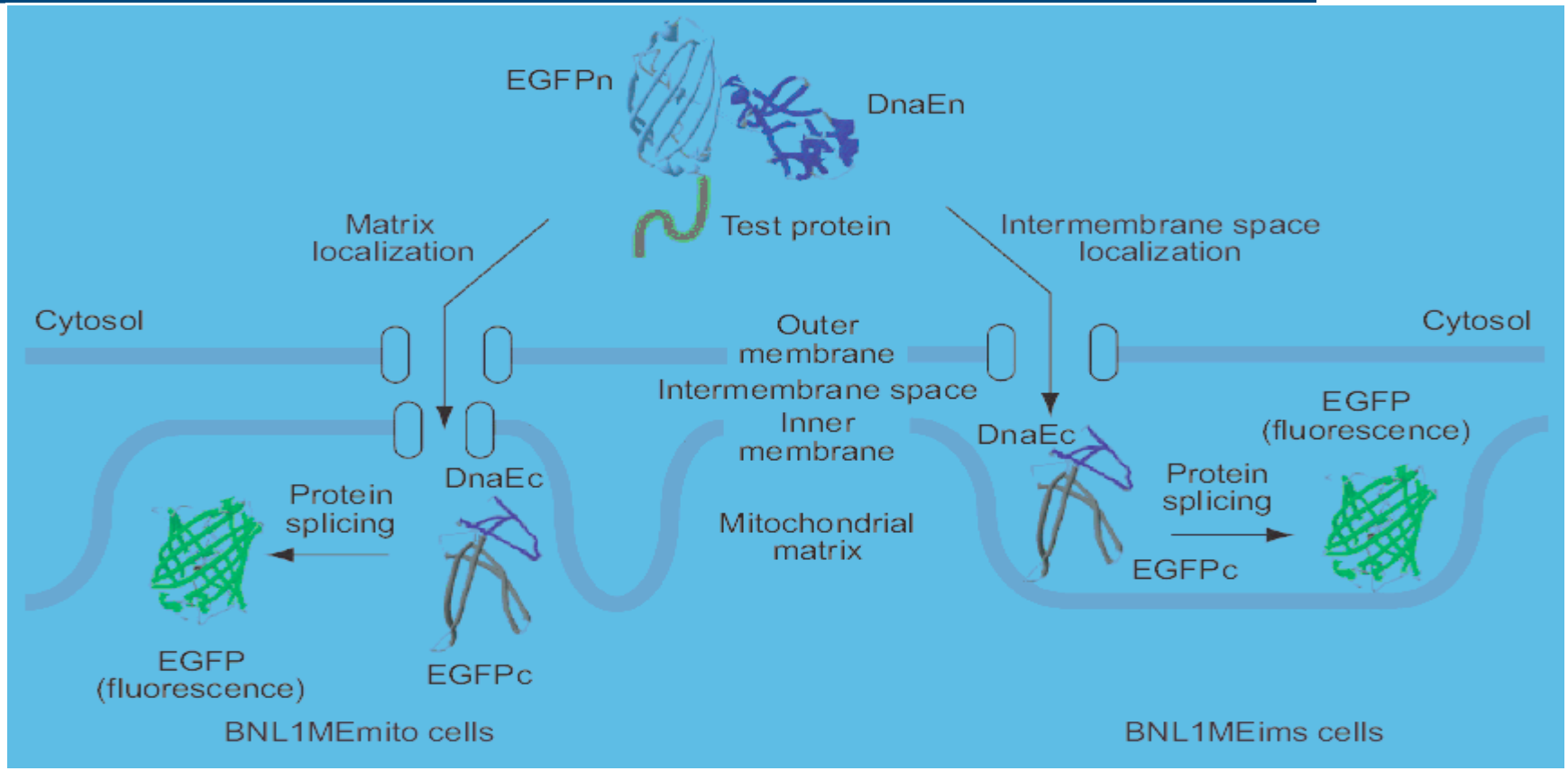
Cytoplasm

Intermembrane Space

Membrane Translocation

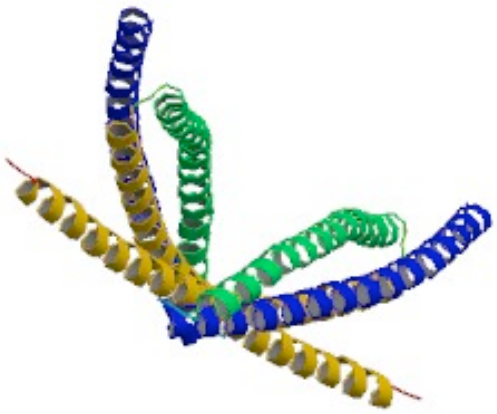


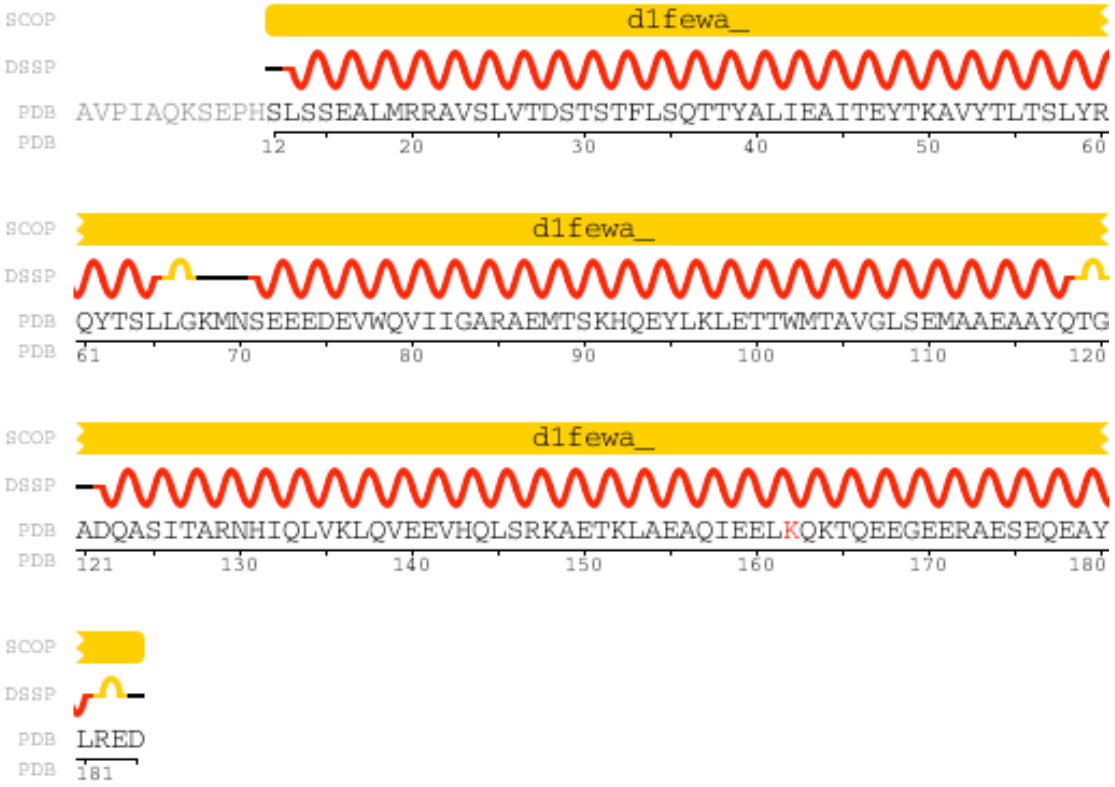
Membrane Translocation Assay



Ozawa *et al*. ACS Chemical Biology, 2007, 2(3), 176-86.

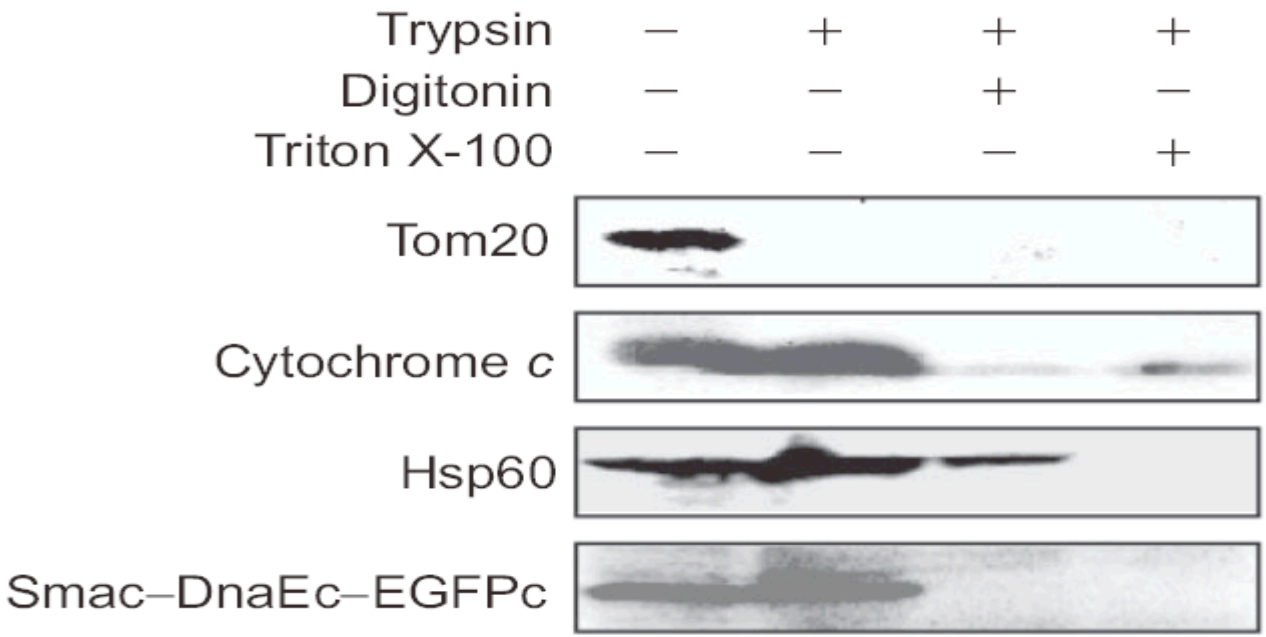
Smac/DIABLO Protein





Smac/DIABLO Protein, Protein Data Bank

Localization of Fusion Protein



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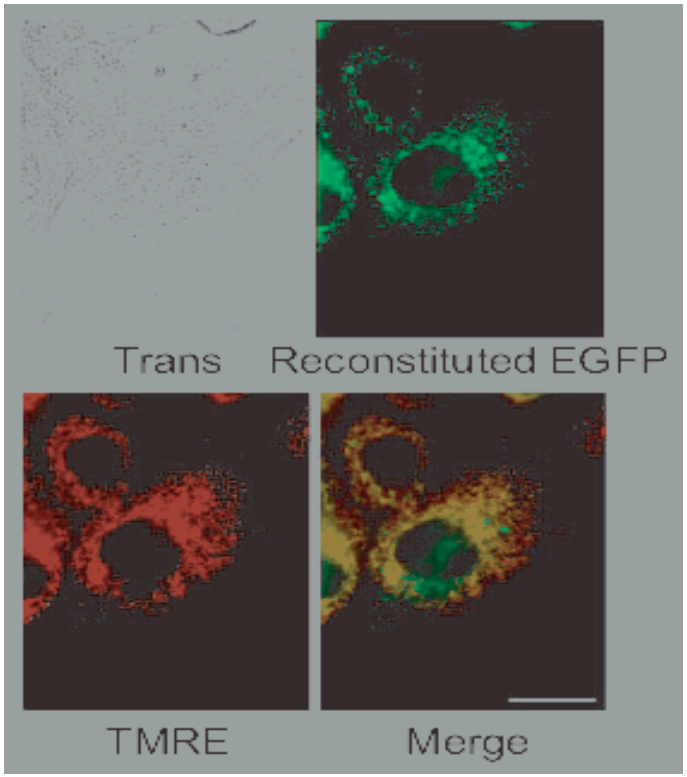
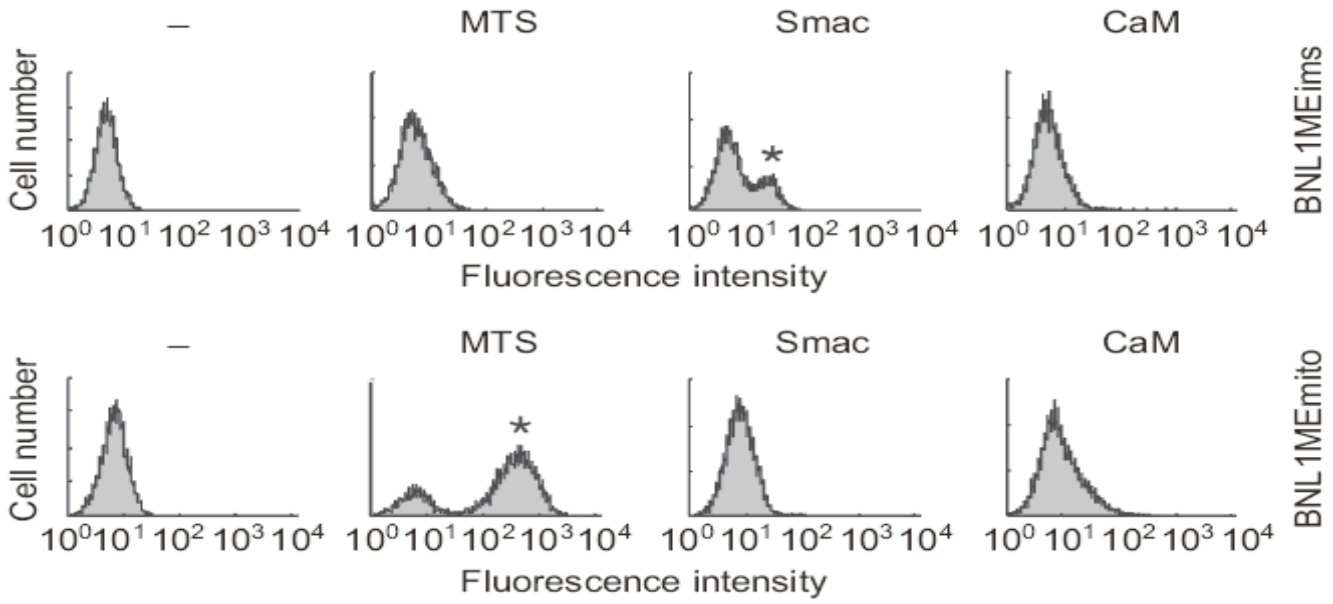
Reconstitution of EGFP Fluorescence



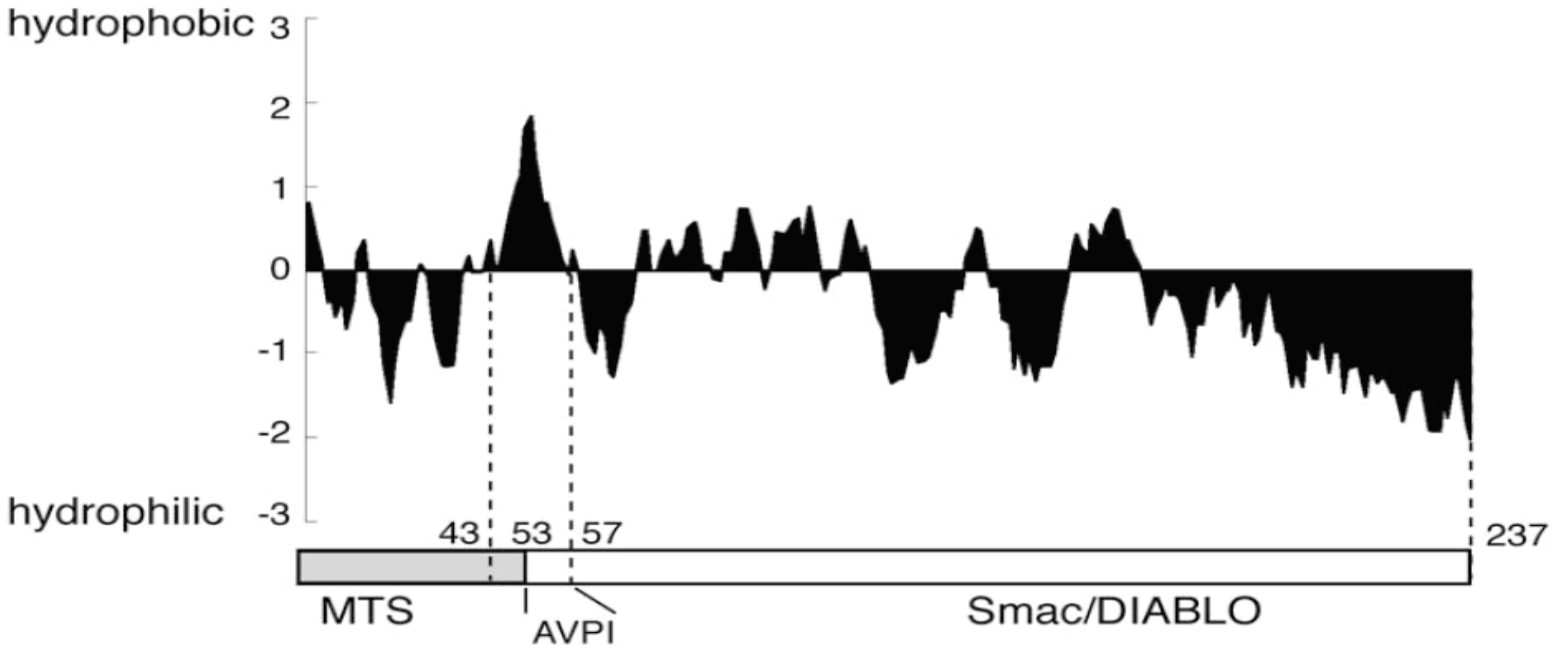
Ozawa *et al*. ACS Chemical Biology, 2007, 2(3), 176-86.

Reconstitution of EGFP Fluorescence



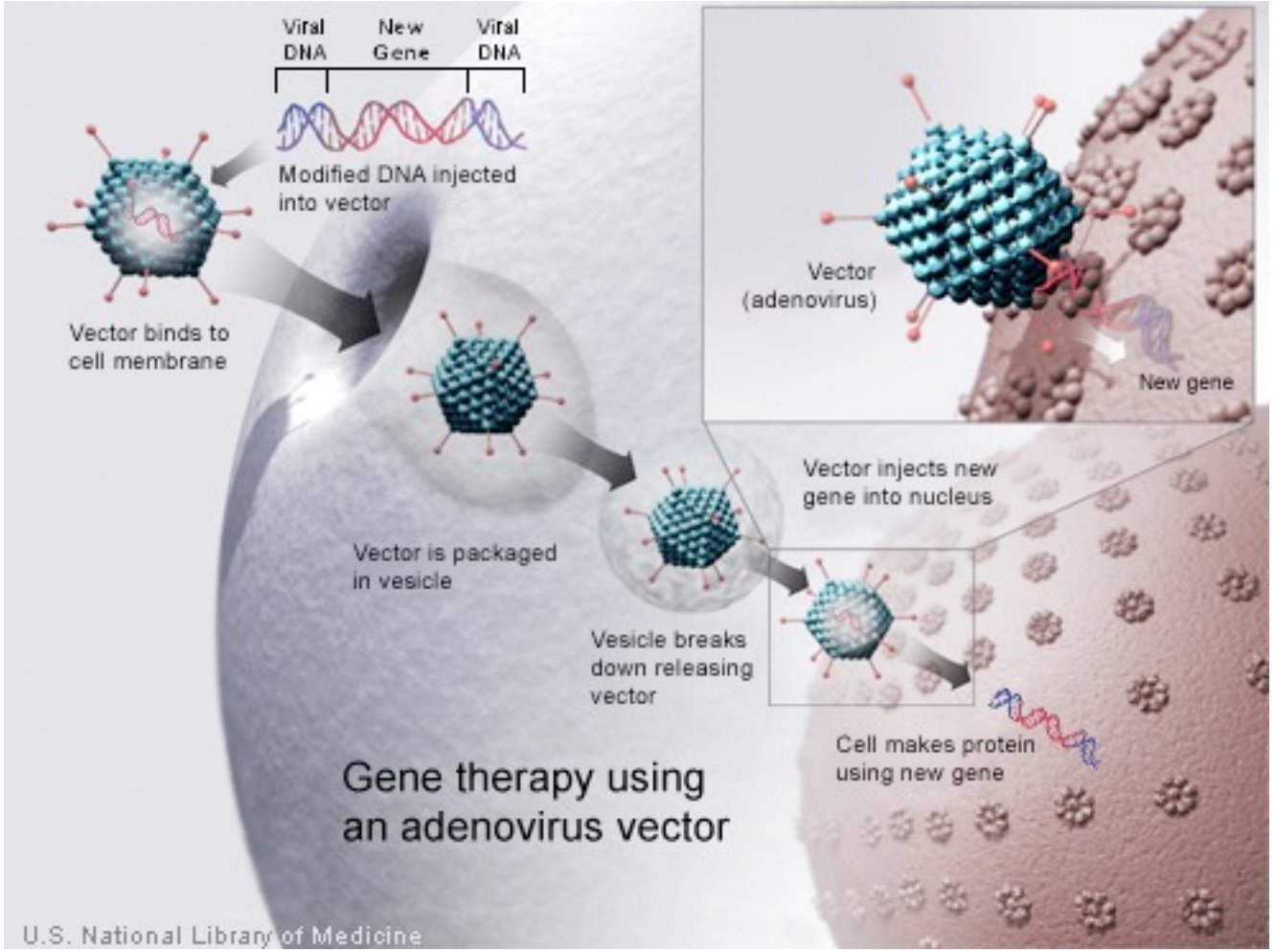
Ozawa *et al*. ACS Chemical Biology, 2007, 2(3), 176-86.

Hydrophobicity Analysis

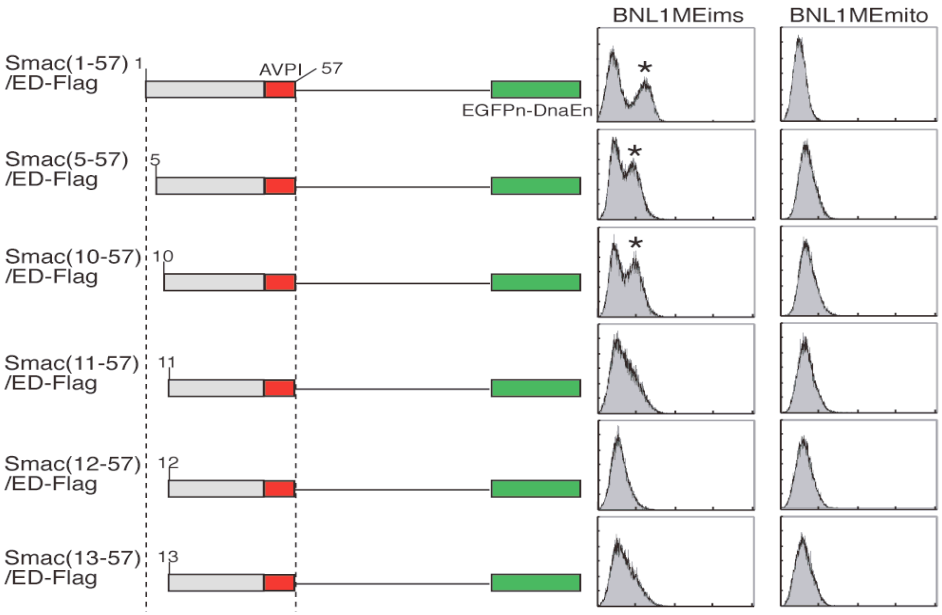


Ozawa *et al*. ACS Chemical Biology, 2007, 2(3), 176-86.

Viral Vectors



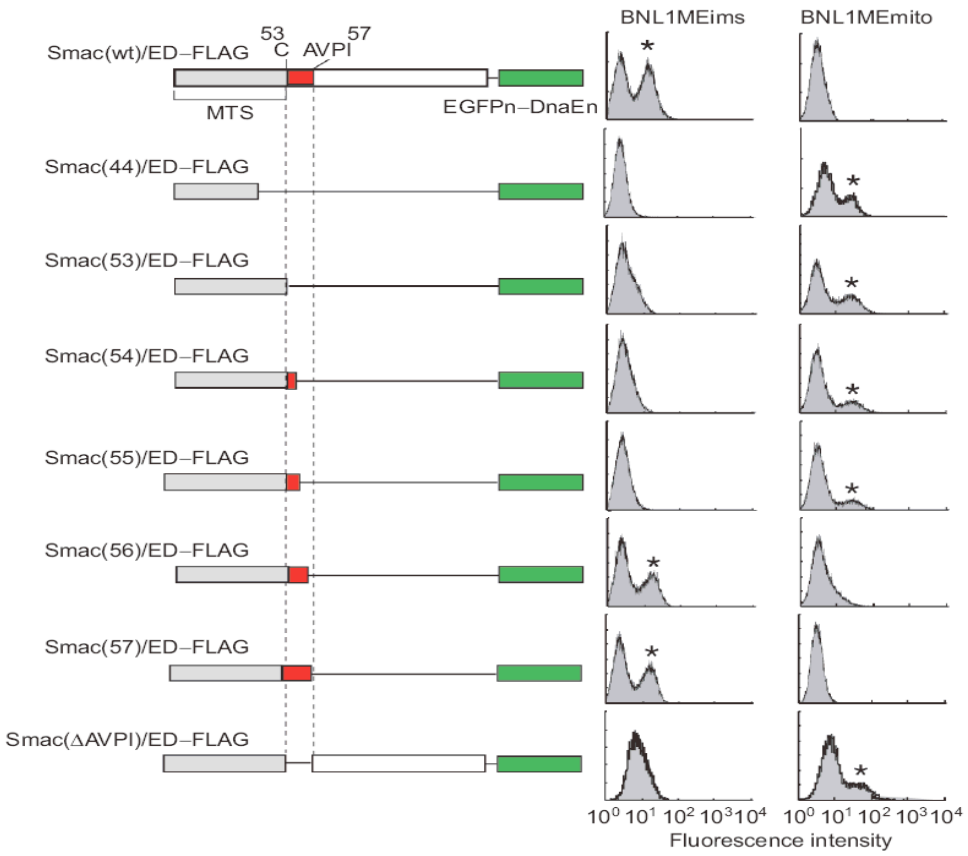
Mutation of Peptide Sequences



- Intermembrane Space
- Intermembrane Space
- Intermembrane Space
- Non-Mitochondrial
- Non-Mitochondrial
- Non-Mitochondrial

Ozawa *et al*. ACS Chemical Biology, 2007, 2(3), 176-86.

Mutation of Peptide Sequences



- Intermembrane Space
- Matrix
- Matrix
- Matrix
- Matrix
- Intermembrane Space
- Intermembrane Space
- Matrix

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Summary

RSVCSLFRYRQRFPVLANSKKRCFSELIKPWHKTVLTGFGMTLCAVPI

10 57

Therapeutic Targeting?

Summary