



Structural Basis For The Unique Myristoylation Signal Of The Feline Immunodeficiency Virus Unmyristoylated Matrix Protein

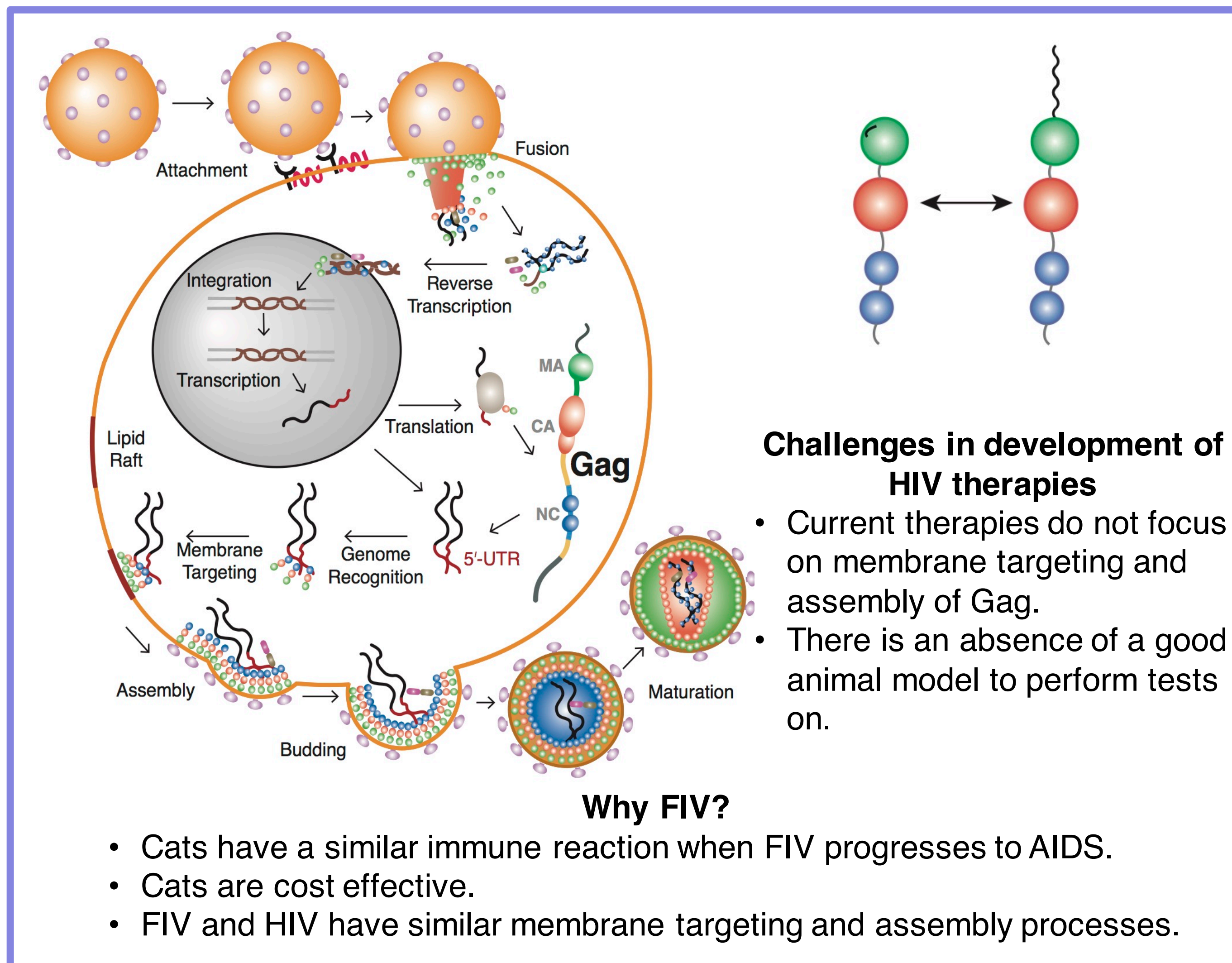


Constance Nyaunu¹, Michael Summers², Janae Baptiste², Paige Canova², Simon Maxwell², Holly Summers²

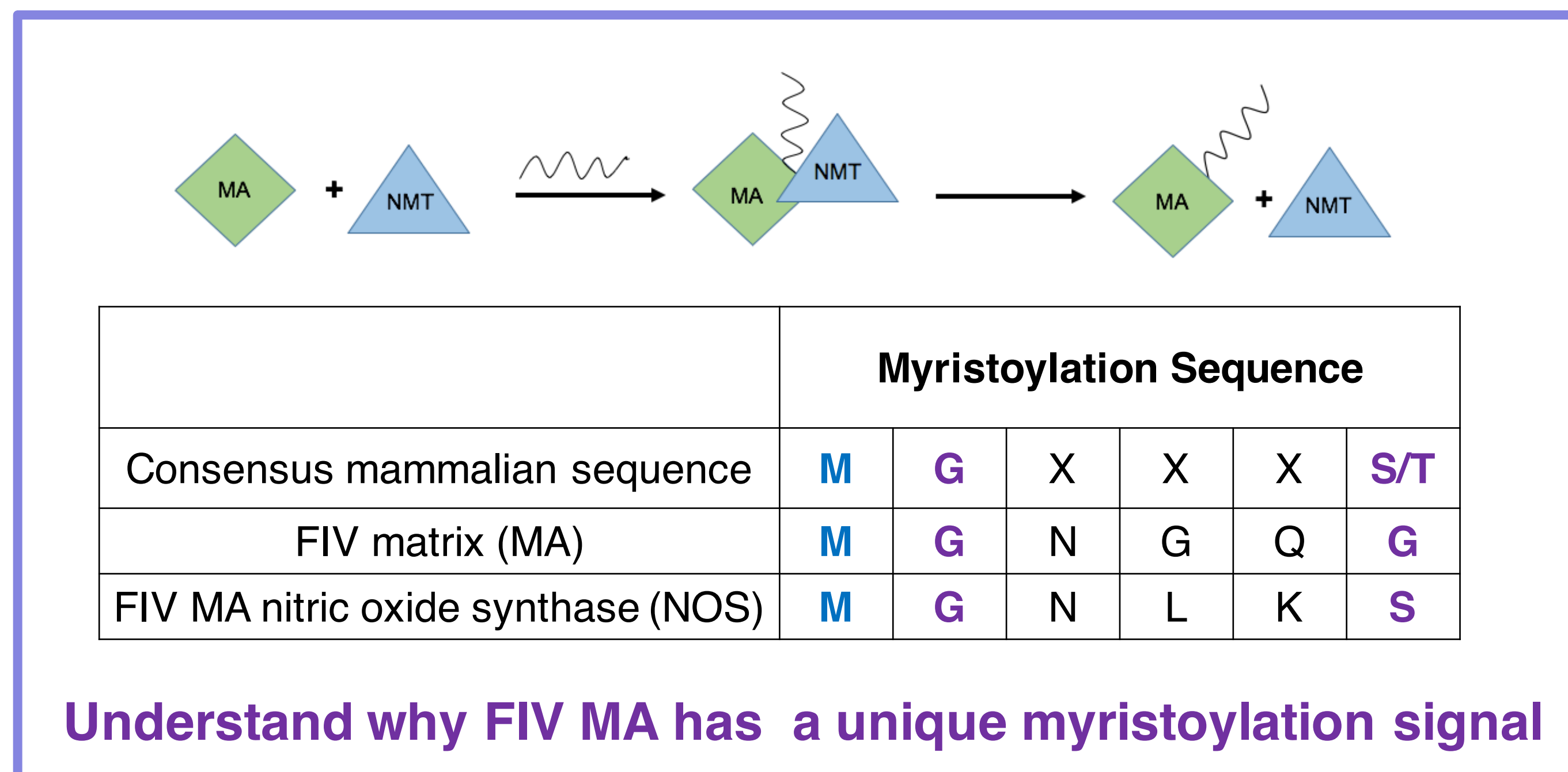
1. Department of Chemistry, Howard University, 525 College Street, NW, Washington, DC 20059

2. Howard Hughes Medical Institute, Department of Chemistry and Biochemistry, University of Maryland Baltimore County, 1000 Hilltop Circle, Baltimore, Maryland 21250

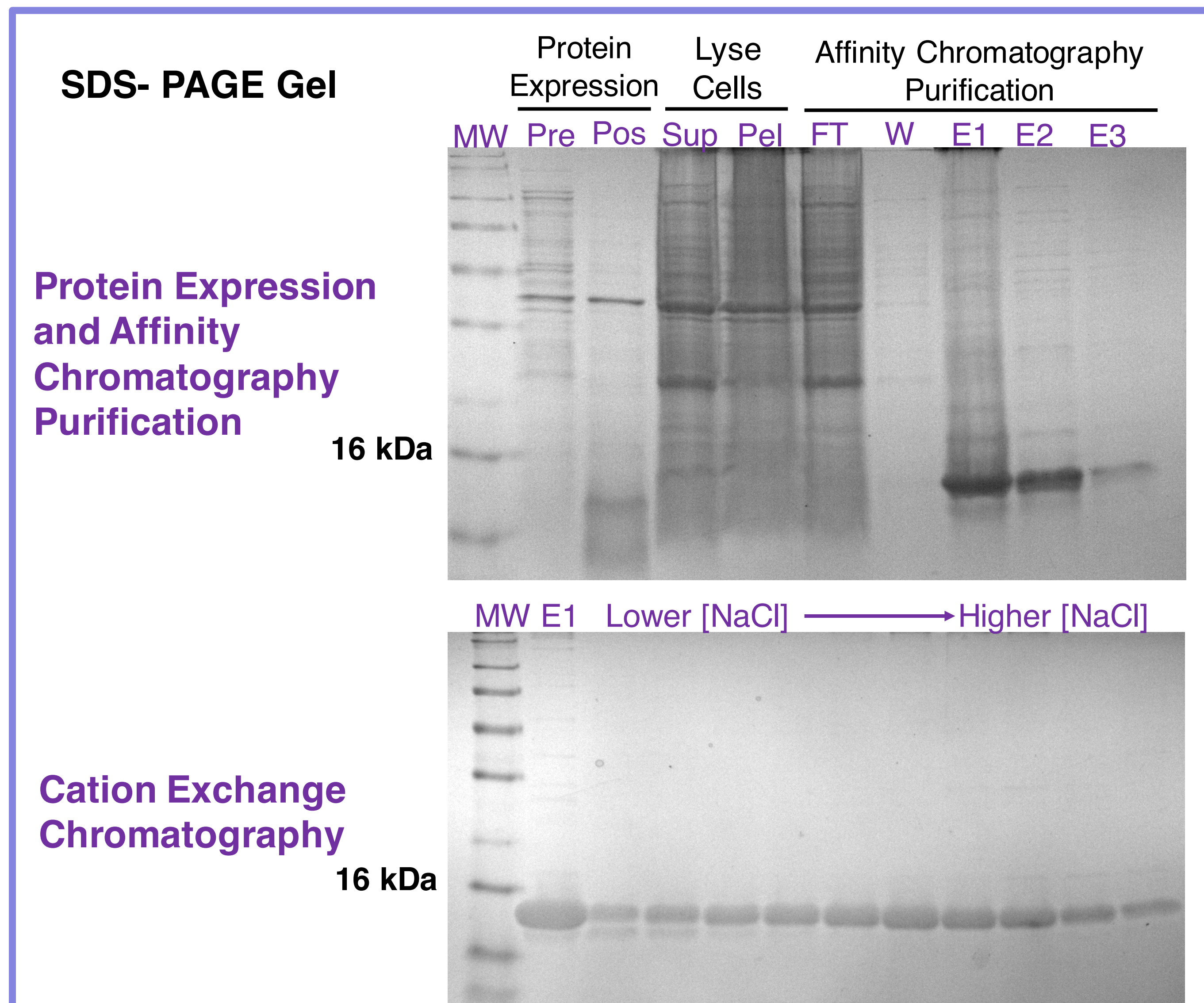
Introduction



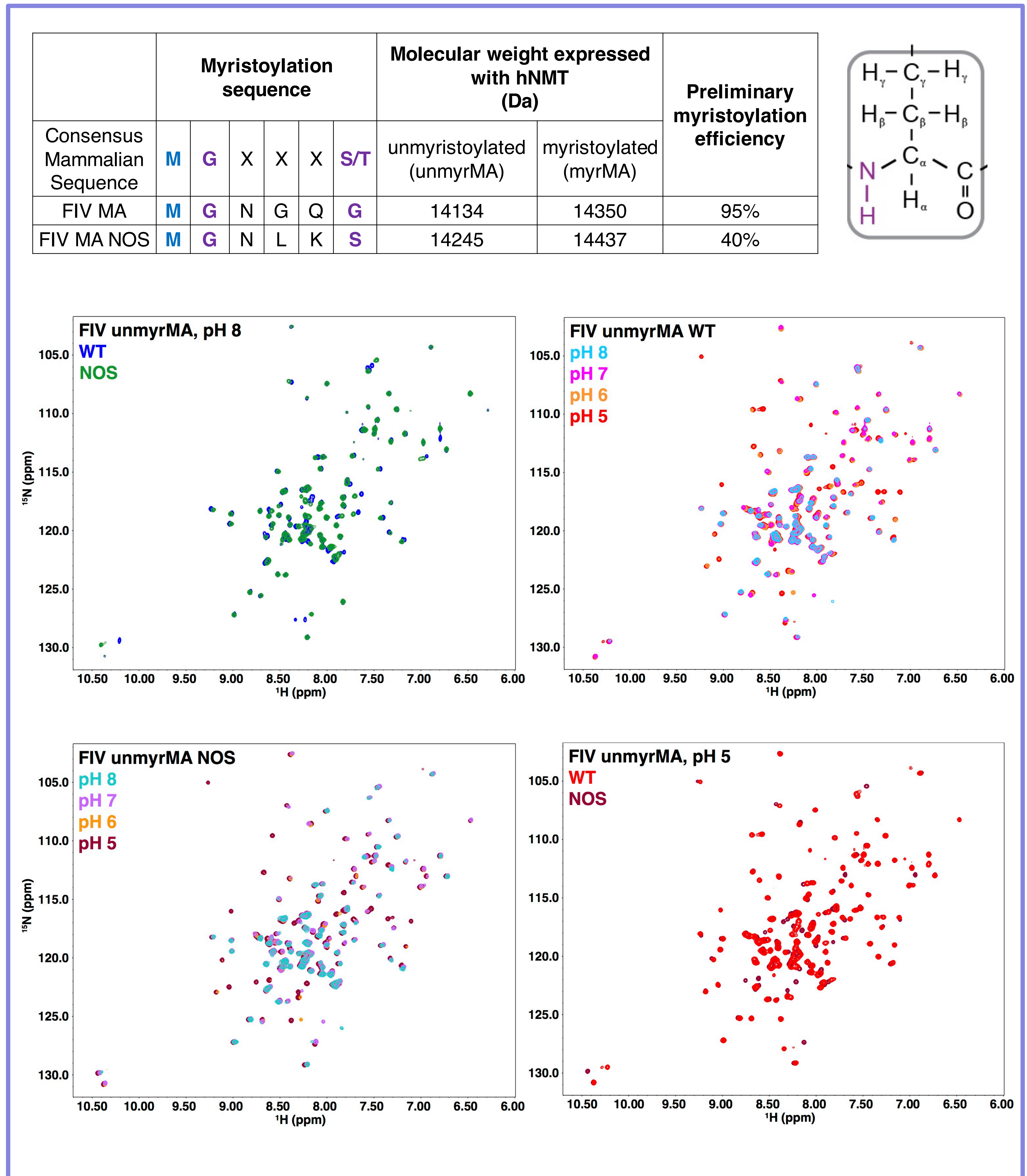
Objective



Methods



Results



Discussion

- Preliminary mass spectrometry show a difference in myristoylation efficiency between FIV MA WT and FIV MA NOS.
- Lower pH conditions results in additional signals for both unmyrWT and unmyrNOS.
- Preliminary HSQC data shows promising results in determining the structural differences between unmyrMA and unmyrMA NOS.

Future Directions

- Solve the structures of FIV unmyrMA WT and FIV unmyrMA NOS.
- Determine if the structural difference between WT and NOS leads to the difference in myristoylation efficiency.

References

- Lu, K. *et al. Mol. J. Bio.* **2011**, *410*, 609-633.
- Brown, L. *et al. Viruses.* **2015**, *7*, 2210-2229.

Acknowledgements

- Michael Summers, Ph.D.
- Janae Baptiste
- Paige Canova
- Holly Summers
- Zeev Rosenzweig, Ph.D.
- Marcin Ptasek, Ph.D.
- NSF-REU
- NIH
- HHMI