Effect of Lipid Headgroup Charge and pH on the Stability and Membrane Insertion Potential of Calcium Condensed Gene Complexes

Nabil A. Alhakamy[1], Ibrahim Elandaloussi[2], Saba Ghazvini[2], Cory J. Berkland[1, 2] and Prajnaparamita Dhar[2]*

[1] Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS, USA 66047

[2] Department of Chemical & Petroleum Engineering, University of Kansas, Lawrence, KS, USA 66047

*Corresponding Author:
Address: 4132 Learned Hall 1530 W 15th St
Lawrence, KS 66045
Telephone: (785) 864-4969;
Fax: (785) 864-4967;
Email: prajnadhar@ku.edu.

Supplementary Figures

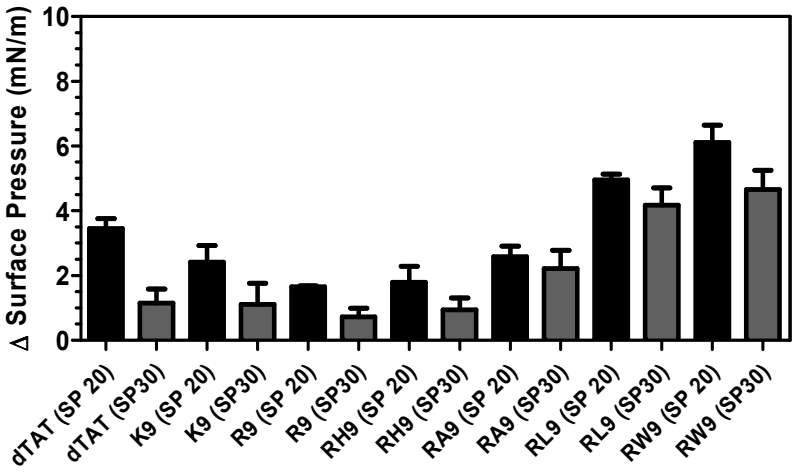
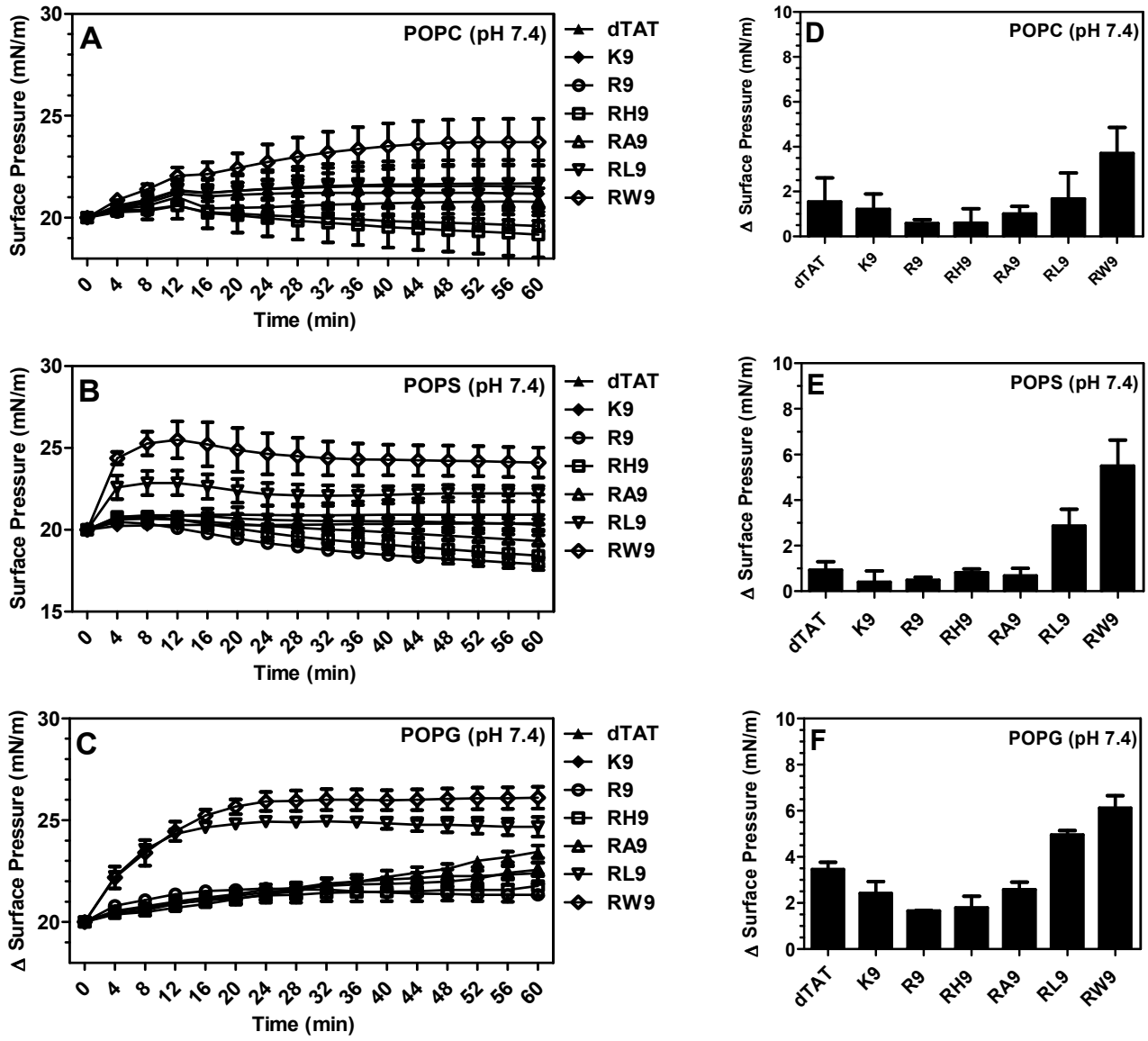
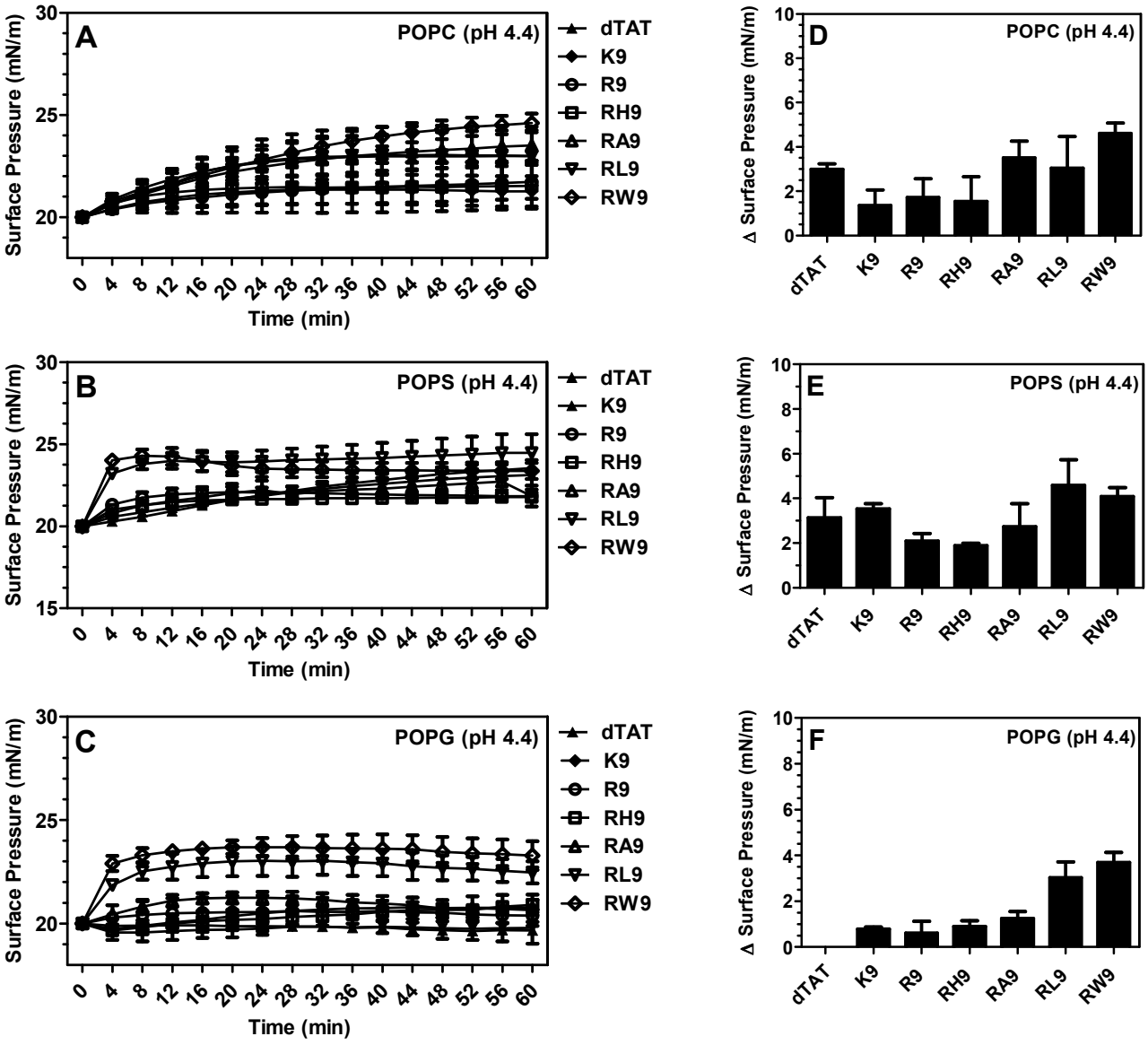


Figure S1. The maximum change in surface pressure of the seven CPPs (dTAT, K9, R9, RH9, RA9, RL9, and RW9) below POPG phospholipid monolayers held at an initial surface pressure of 20 mN/m and at pH 7.4. Results are presented as mean SD (n = 3).



Supplementary Figure S2. Changes in surface pressure as a function of time following injection of the seven CPPs (dTAT, K9, R9, RH9, RA9, RL9, and RW9) below (A) POPC, (B) POPS, and (C) POPG phospholipid monolayers held at an initial surface pressure of 20 mN/m and at pH 7.4. The maximum change in surface pressure (plateau values) of the (D) POPC, (E) POPS, (F) POPG due to adsorption of seven CPPs. Results are presented as mean SD (n = 3).



Supplementary Figure S3. Changes in surface pressure as a function of time following injection of the seven CPPs (dTAT, K9, R9, RH9, RA9, RL9, and RW9) below (A) POPC, (B) POPS, and (C) POPG phospholipid monolayers held at an initial surface pressure of 20 mN/m and at pH 4.4. The maximum change in surface pressure (plateau values) of the (D) POPC, (E) POPS, (F) POPG due to adsorption of seven CPPs. Results are presented as mean SD (n = 3).