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PhD 2021, Princeton University

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Recent Papers

K. Ristroph, S. McManus, G. Shetye, S. Cho, D. Lee, Z. Szekely, P. Sinko, S. Franzblau, R. K. Prud'homme.

"Targeted antitubercular peptide nanocarriers prepared by Flash NanoPrecipitation with hydrophobic ion pairing." *Advanced Materials Technologies* (2022)

N. Khan, M. Salim, S. Binte, A. Bakar, K. Ristroph, R. K. Prud'homme, A. Hawley, B. J. Boyd, A. J. Clulow.

"Small-volume in vitro lipid digestion measurements for assessing drug dissolution in lipid-based formulations using SAXS." *International Journal of Pharmaceutics: X* (2022)

K. Yamada, K. Ristroph, Y. Kaneko, H. Lu, Y. Seto, H. Sato, R. K. Prud'homme, S. Onoue.

"Clofazimine-loaded Mucoadhesive Nanoparticles Prepared by Flash NanoPrecipitation for Strategic Intestinal Delivery." *Pharmaceutical Research* (2021)

K. Ristroph, J. Ott, L. Issah, B. Wilson, A. Kujović, S. Datta, R. K. Prud'homme. "Reversible pH-driven flocculation of amphiphilic polyelectrolyte-coated nanoparticles for rapid filtration and concentration." *ACS Applied Nano Materials* (2021)

C. Markwalter, R. Pagels, A. Hejazi, K. Ristroph, J. Wang, K. Chen, J. Li, R. K. Prud'homme. "Sustained release of peptides and proteins from polymeric nanocarriers produced by inverse Flash NanoPrecipitation." *Journal of Contr. Release* (2021)

K. Ristroph, M. Salim, A. Clulow, B. Boyd, R. K. Prud'homme. "Chemistry and geometry of counterions used in hydrophobic ion pairing control internal liquid crystal phase behavior and thereby drug release." *Molecular Pharmaceutics* (2021)

K. Ristroph, P. Rummaneethorn, B. Johnson-Weaver, H. Staats, and R. K. Prud'homme. "Highly-loaded protein nanocarriers prepared by Flash NanoPrecipitation with hydrophobic ion pairing." *International Journal of Pharmaceutics* (2021)

K. Ristroph, M. Salim, B. Wilson, A. Clulow, B. Boyd, R. K. Prud'homme. "Internal liquid crystal structures in nanocarriers containing drug hydrophobic ion pairs dictate drug release." *J. Coll. Int. Sci.* (2020)

M. McPhillie, Y. Zhou, M. Hickman, J. Gordon, C. Weber, Q. Li, P. Lee, K. Ampornnanai, R. Johnson, H. Darby, S. Woods, Z. Li, R. Priestley, K. Ristroph, et al. "Potent tetrahydroquinolone eliminates apicomplexan parasites." *Frontiers in Cellular and Infection Microbiology* (2020)

D. Kozuch, K. Ristroph, R. Prud'homme, P. DeBenedetti. "Insights into hydrophobic ion pairing from molecular simulation and experiment." *ACS Nano* (2020)

K. Ristroph and R. K. Prud'homme. "Hydrophobic ion pairing: encapsulating small molecules, peptides, and proteins into nanocarriers." *Nano. Adv.* (2019)

K. Ristroph, J. Feng, S. McManus, Y. Zhang, K. Gong, H. Ramachandrani, C. White, R. K. Prud'homme. "Spray drying OZ439 nanoparticles to form stable, water-dispersible powders for oral malaria therapy." *Journal of Translational Medicine* (2019)

H. Sato, Y. Kaneko, K. Yamada, K. Ristroph, H. Lu, Y. Seto, H.-K. Chan, R. Prud'homme, S. Onoue. "Polymeric NCs with mucus-diffusive and mucus-adhesive properties to control pharmacokinetic behavior of orally-dosed cyclosporine A." *Journal of Pharmaceutical Science* (2019)

Recent Patents

L. Wang, K. Ristroph, R. K. Prud'homme. "Sequential multi-step flash nanoprecipitation for the formation of small nanoparticles with high core loading." WO2021080827A1

K. Ristroph, N. M. Pinkerton, H. D. Lu, R. K. Prud'homme. "Hydrophobic ion pairing and Flash NanoPrecipitation for formation of controlled release nanocarrier formulations." WO2019090030A1