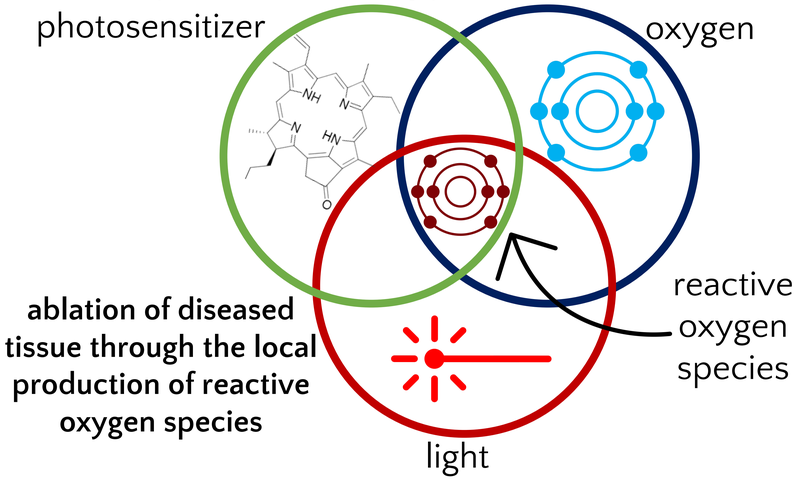
Porphysome nanoparticles for photodynamic therapy of rectal cancer

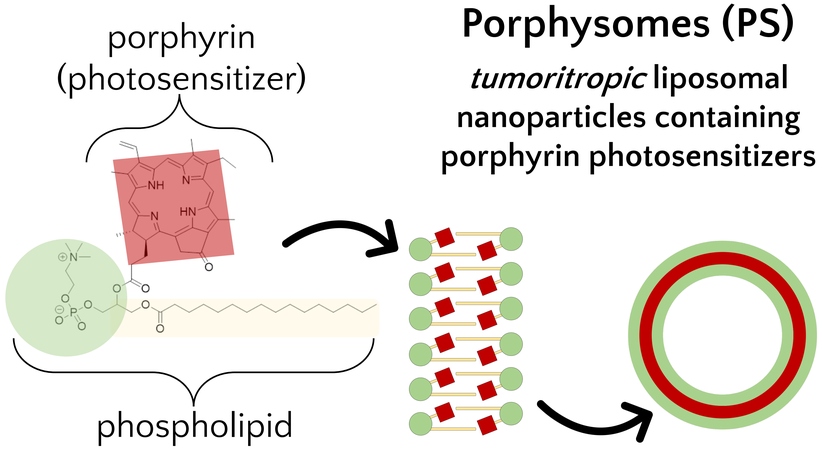
K. Guidolin, L. Ding, J. Chen, S. Chadi, F. Quereshy, G. Zheng
Princess Margaret Cancer Centre & University of Toronto

Photodynamic Therapy (PDT)

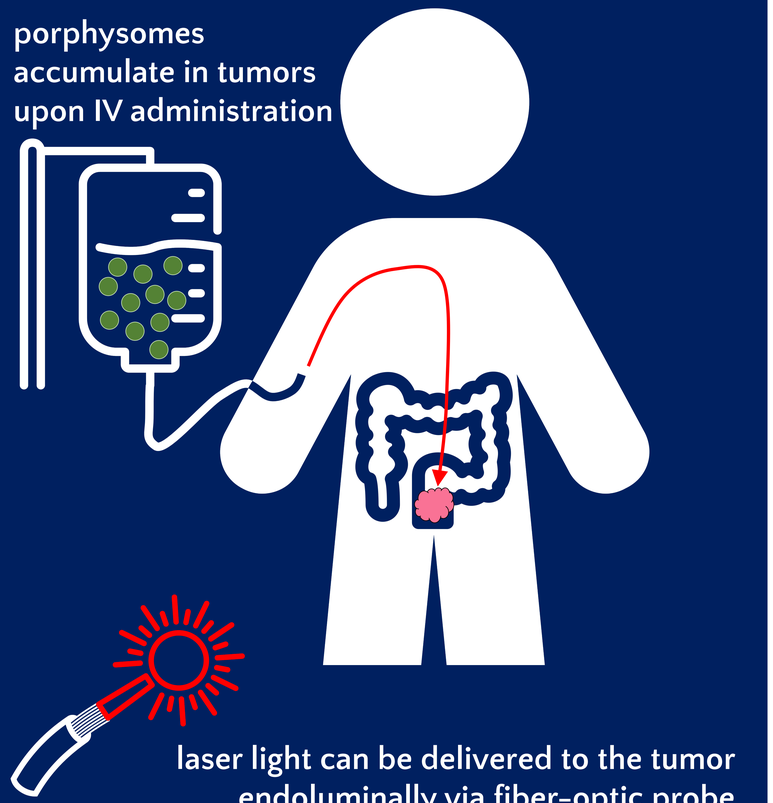


ablation of diseased tissue through the local production of reactive oxygen species

Porphysomes (PS)

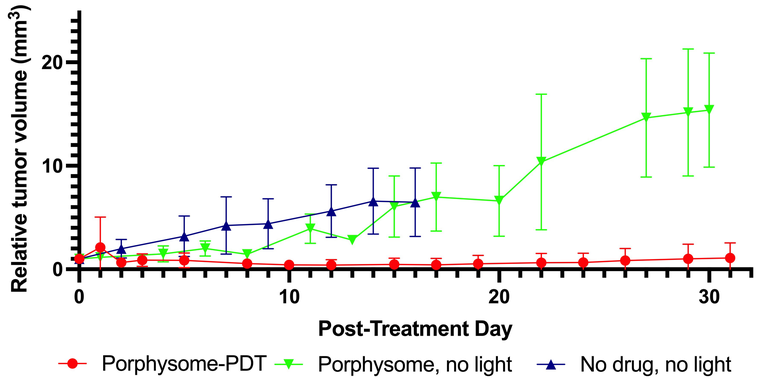


tumoritropic **liposomal nanoparticles containing porphyrin photosensitizers**

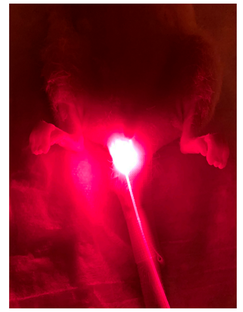


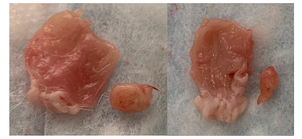
Co-delivery of PS and light to the tumor may ablate rectal cancers

PS-PDT effectively ablates tumors in mice

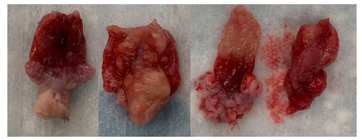


PS-PDT can be administered to rats with rectal cancer





untreated



treated

Future Directions

Clinical trial of endoluminal PDT to augment **sphincter preserving therapy** for rectal cancer

