

Supplementary Information

**Exogenous delivery of MicroRNA-449b-5p using spermidine-PLGA nanoparticles
efficiently decreases the hepatic injury**

Fengli Hu^{1#}, Dongdong Yang^{2#}, Bo Qian¹, Shengjie Fan¹, Qiankun Zhu², Haiyang Ren²,
Xiaodong Li², Bo Zhai^{2*}

¹Department of Gastroenterology, The Fourth Affiliated Hospital of Harbin Medical University,
Nangang District, Harbin, China, 150001

²Department of Surgical Oncology and Hepatobiliary Surgery, The Fourth Affiliated Hospital of
Harbin Medical University, Nangang District, Harbin, China, 150001

#These two authors contribute to this work equally.

***Corresponding author:**

Bo Zhai, MD

Department of Surgical Oncology and Hepatobiliary Surgery,

The Fourth Affiliated Hospital of Harbin Medical University,

No. 37, Yiyuan Street, Nangang District, Harbin, China, 150001

Tel/Fax: +86 451 8257 6777

Email: BernardLindseyfmg@yahoo.com

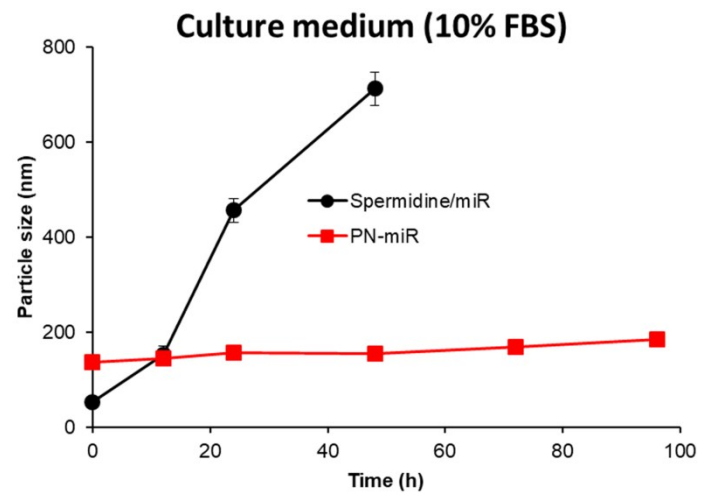
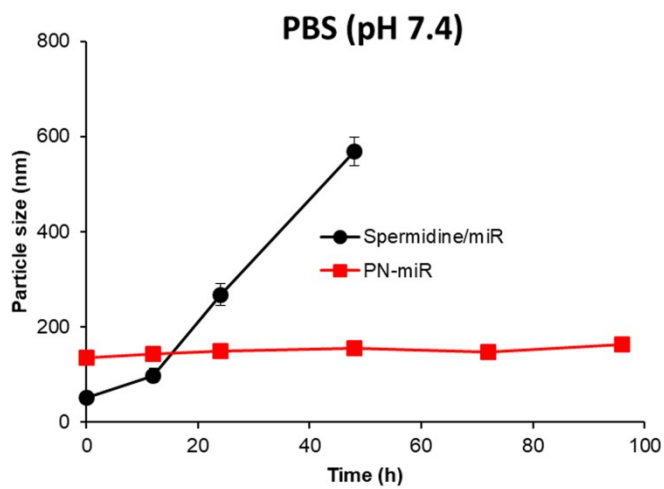


Figure S1: Stability analysis of Spermidine/miR complex and PN-miR nanoparticles in PBS and culture medium conditions. The stability was analyzed in terms of change in particle size.

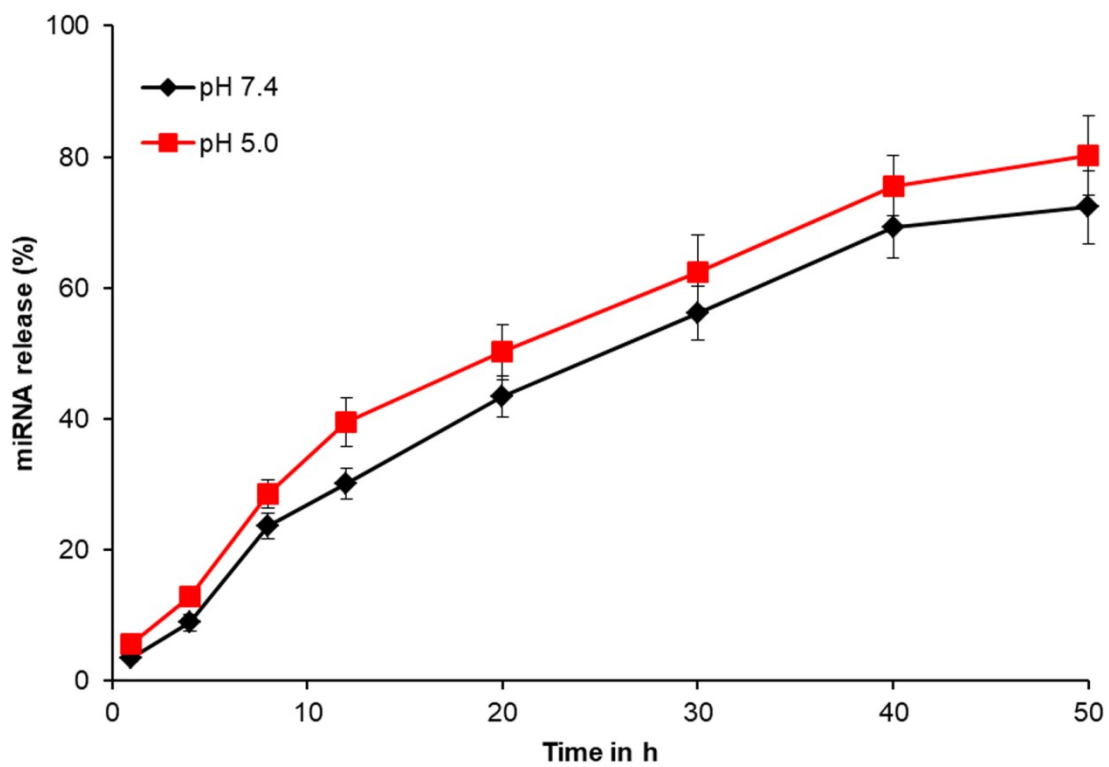


Figure S2: In vitro miRNA release from PN-miR nanoparticles under pH 7.4 and pH 5.0 buffer conditions. FAM-miRNA was used to determine the release kinetics of miRNA under specified pH conditions.