

**melatonin regulates cancer migration and stemness and enhances the anti-tumor effect
of cisplatin**

Running Title: melatonin in cancer treatment

Linglin Cheng^{1, *}, Shubo Li^{2, *}, Kailun He¹, Ye Kang³, Tianye Li¹, Chunting Li¹, Yi Zhang¹,
Wanlu Zhang¹, Yongye Huang^{1, 4, #}

¹College of Life and Health Sciences, Northeastern University, Shenyang, 110169, China

²Liaoning Center for Animal Disease Control and Prevention, Liaoning Agricultural Development Service Center, Shenyang, 110164, China.

³Department of Pathology, Shengjing Hospital of China Medical University, No. 36, Sanhao Street, Heping District, Shenyang, 110004, China

⁴Key Laboratory of Bioresource Research and Development of Liaoning Province, College of Life and Health Sciences, Northeastern University, Shenyang, 110169, China.

* These authors contributed equally to this work

[#]To whom correspondence should be addressed: Tel: +86-24-83656116. Fax: +86-24-83656116.

E-mail: huangyongye88@163.com, huangyongye@mail.neu.edu.cn.

Figure S1. Expression of EMT associated factors as evaluated by RT-qPCR. Data are presented as the mean \pm SEM of duplicate experiments. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$, indicate significant differences when compared with the control group.

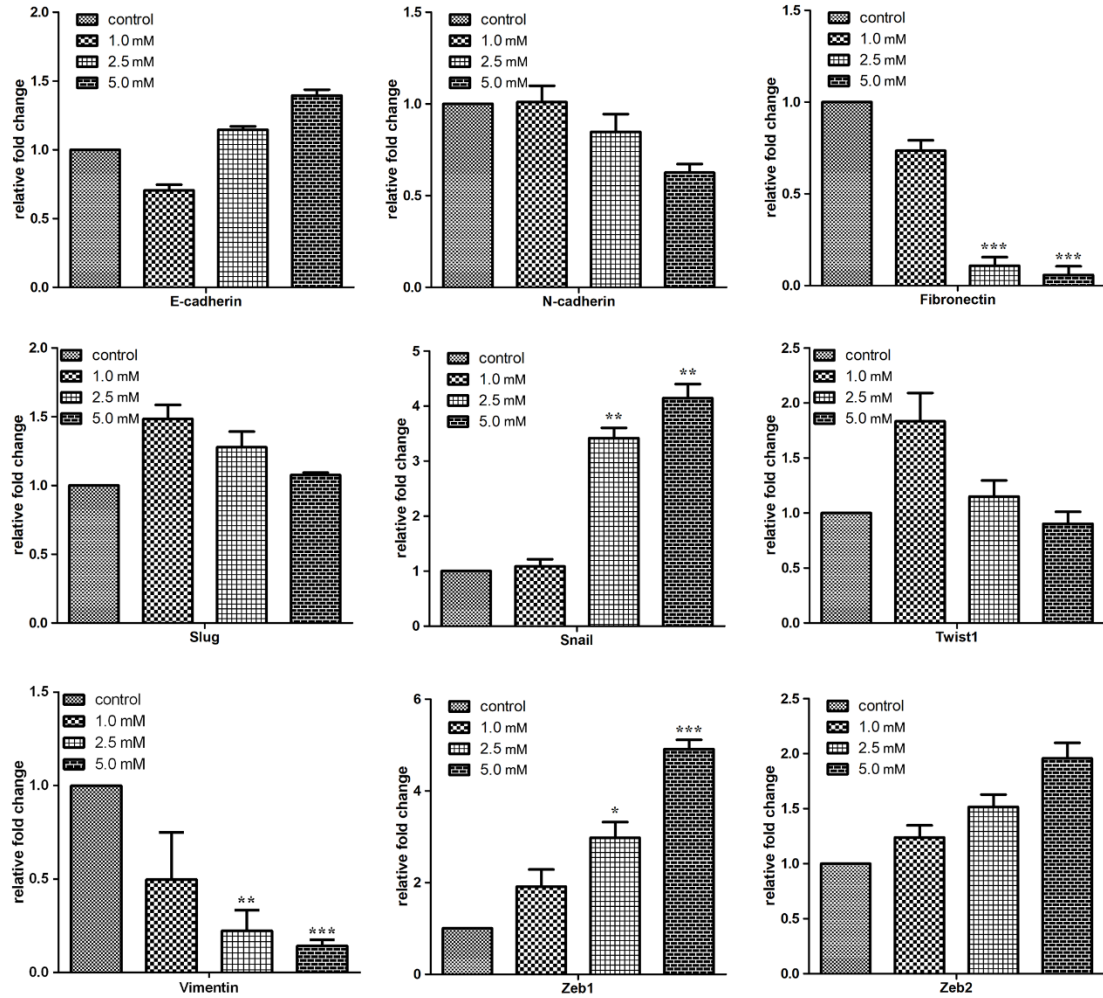


Figure S2. Expression of lncRNA as determined by RT-qPCR. Data are presented as the mean \pm SEM of duplicate experiments. * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$, indicate significant differences when compared with the control group.

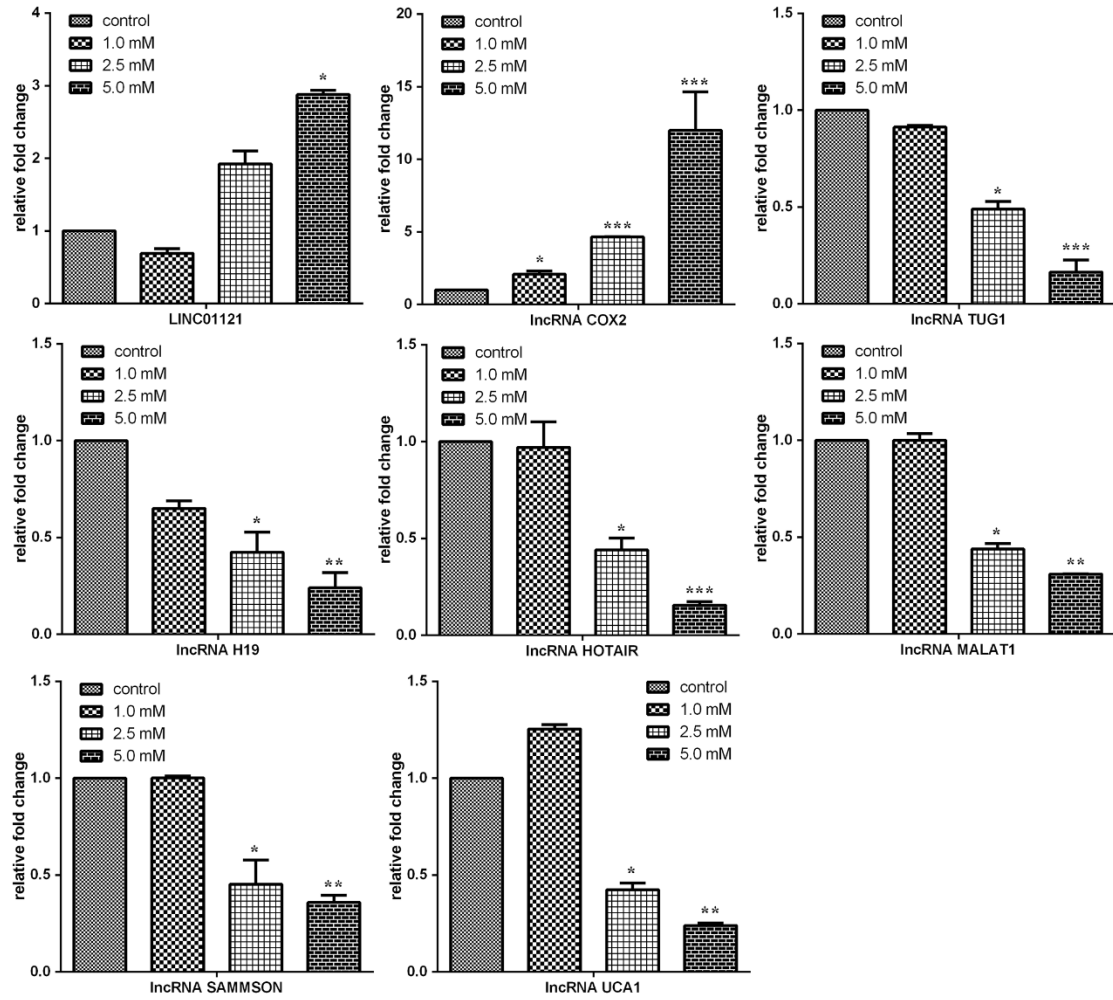


Figure S3. Expression of necroptosis and ER stress associated proteins in gastric cancer cells with lncRNA H19 knockdown and melatonin treatment.

