

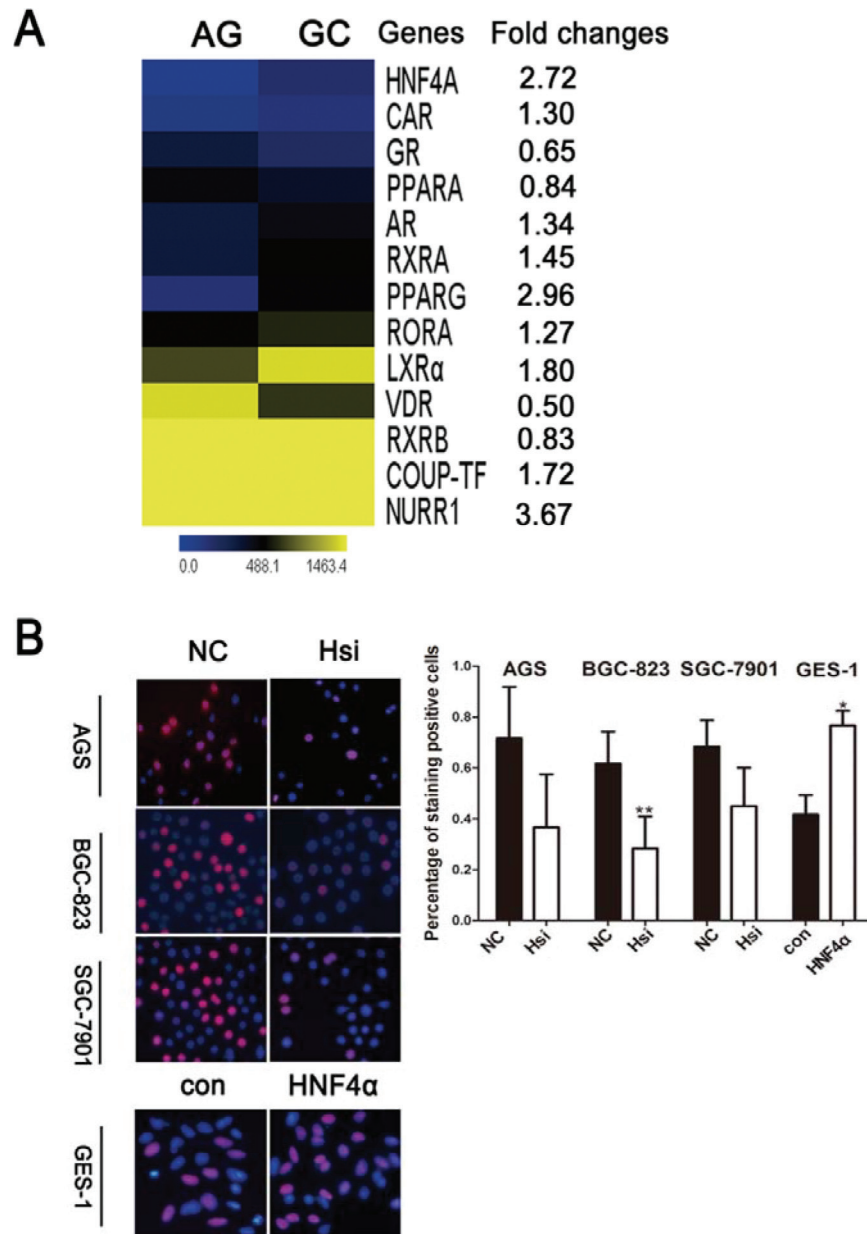
SUPPLEMENTARY TABLES AND FIGURES

Supplementary Table S1: PCR primers used in this study

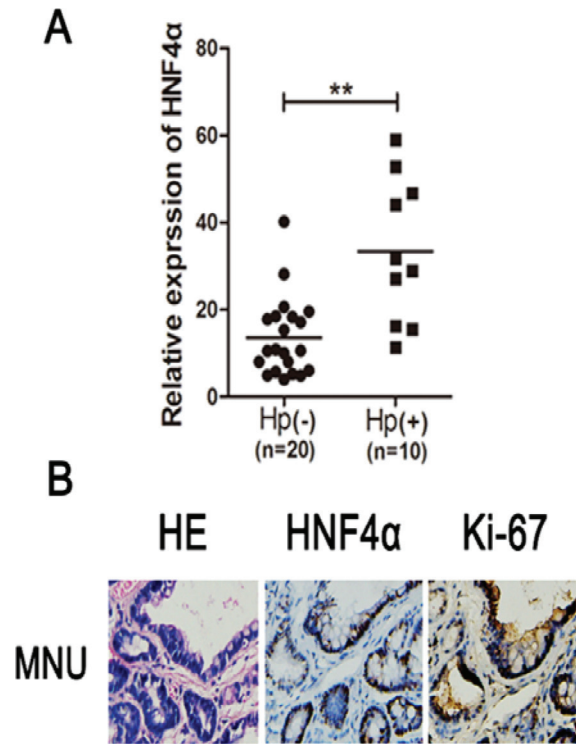
HNF4α	Forward:5'-TGTCCCGACAGATCACCTC-3' Reverse:5'-CACTCAACGAGAACCAGCAG-3'
P1 HNF4α	Forward:5'-GAATGCGACTCTCCAAAACC-3' Reverse:5'-GGCACTGGTTCCTCTTGTCT-3'
P2 HNF4α	Forward:5'-GGGCTCCAGTGGAGAGTTC-3' Reverse:5'-CATAGCTTGACCTTCGAGTGC-3'
IL-1R1	Forward:5'-GATTCCTGCTATGATTTTCTC-3' Reverse:5'-AGTCTTCTGCTTTTCTTTACG-3'
pGL3-P1HNF4α	Forward:5'-GGTACCAATCATTTACCCAAGGTCCCA-3' Reverse:5'-AAGCTTCACCCCAAGTCAGGCATTCTA-3'
pGL3-P2 HNF4α	Forward:5'-GGTACCCCTGGTTCAAACGATTCTC-3' Reverse:5'-AAGCTTCTCATAGTTTGCCCTGCTTC-3'
pGL3-IL-1R1	Forward:5'-GGTACCGCAAGGAGCCCAAGGTGT-3' Reverse:5'-AAGCTTCAGATCCCGAAGCAAACG-3'
P1 HNF4α(ChIP)	Forward:5'-GGGAACCGGGAAACTGCG-3' Reverse:5'-CCCACGATTTAGAAACCTA-3'
P2 HNF4α(ChIP)	Forward:5'-CCTCCCGTTTGCCACCA-3' Reverse:5'-CCTGTAACCCAGCATT-3'
Actin	Forward:5'-AGTTGCGTTACACCCTTTCTTG-3' Reverse:5'-CACCTTCACCGTTCCAGTTTT-3'

Supplementary Table S2: Incidence of AG and expression of HNF4 α in mice given MNU and infected with Hp

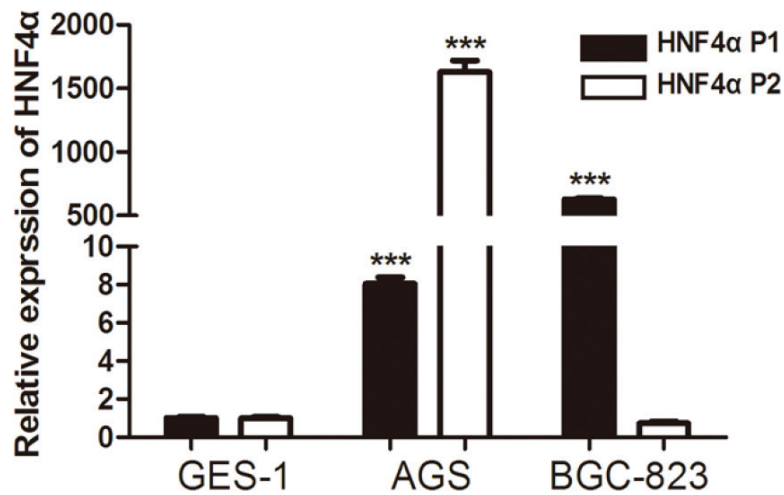
Group	Number of animals		Incidence of AG	High expression of HNF4 α (No.)
	Initial	End		
Control	12	12	0	0
MNU	12	10	4	2
MNU+Hp	12	9	6	6



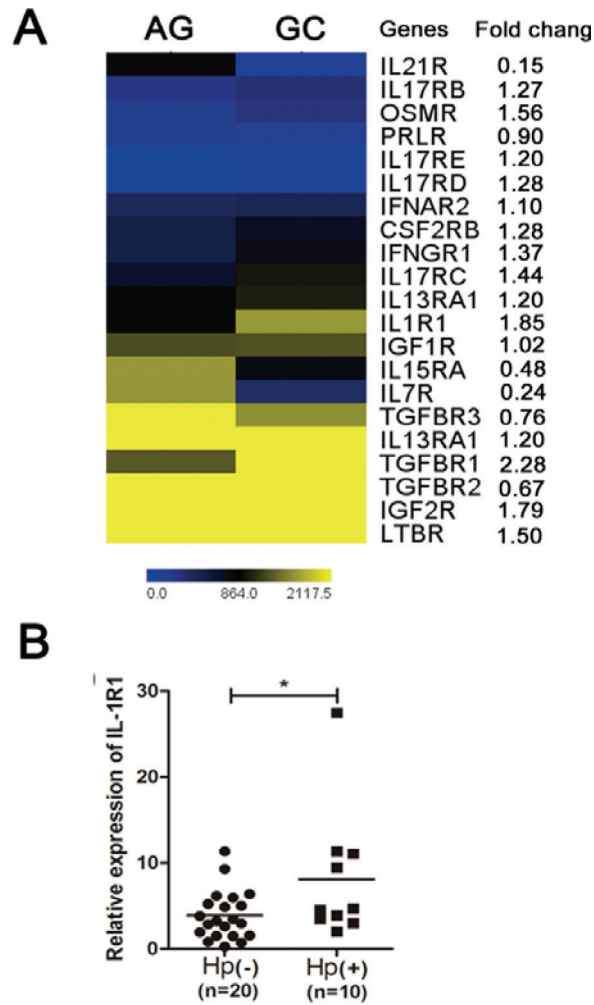
Supplementary Figure S1: A. Heat map shows expression changes of nuclear receptors in atrophic gastritis and gastric cancer. B. EdU staining after cells transfected HNF4 α siRNA or HNF4 α over-expression plasmid. Representative images are shown here from three independent biological replicates. *P < 0.05, **P < 0.01 by Student's t test.



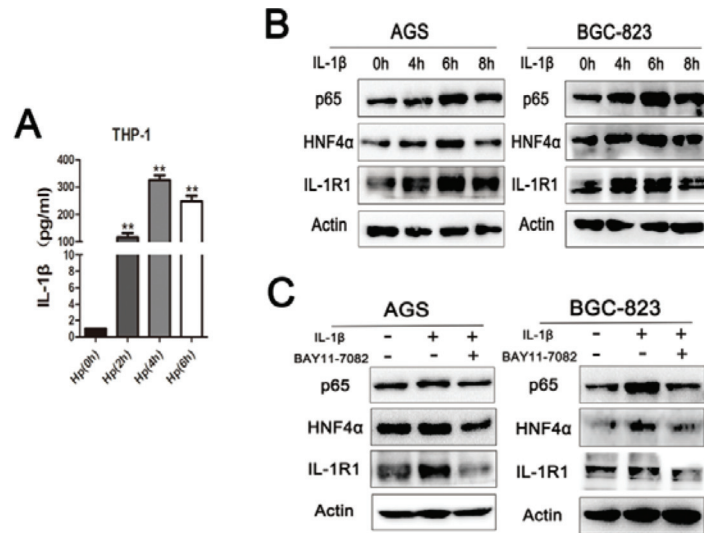
Supplementary Figure S2: A. The mRNA levels of HNF4α in 30 atrophic gastritis were measured by real-time PCR. The horizontal bars indicate the mean value of each sample group. **p<0.01 by Mann-Whitney U-test. B. HE staining and IHC of HNF4α and Ki-67 in MNU group.



Supplementary Figure S3: Expression of P1- and P2-driven HNF4α in indicated cell lines using real-time PCR. ***P< 0.001 by Student's t test.



Supplementary Figure S4: A. Heat map shows expression changes of cellular surface receptors in atrophic gastritis and gastric cancer. **B.** The mRNA levels of IL-1R1 in 30 atrophic gastritis were measured by real-time PCR. The horizontal bars indicate the mean value of each sample group. * $p < 0.05$ by Mann-Whitney U-test.



Supplementary Figure S5: A. Hp elicited IL-1β release by monocytic cell line THP-1. **P < 0.01 by Student's t test. B. Western blot shows increased protein levels of p65, HNF4α and IL-1R1 when AGS and BGC-823 cells were treated with IL-1β (10ng/ml) for 4, 6 and 8 hours. C. BAY 11-7082 (1.0 mM) attenuated the induction of indicated protein expression by IL-1β.