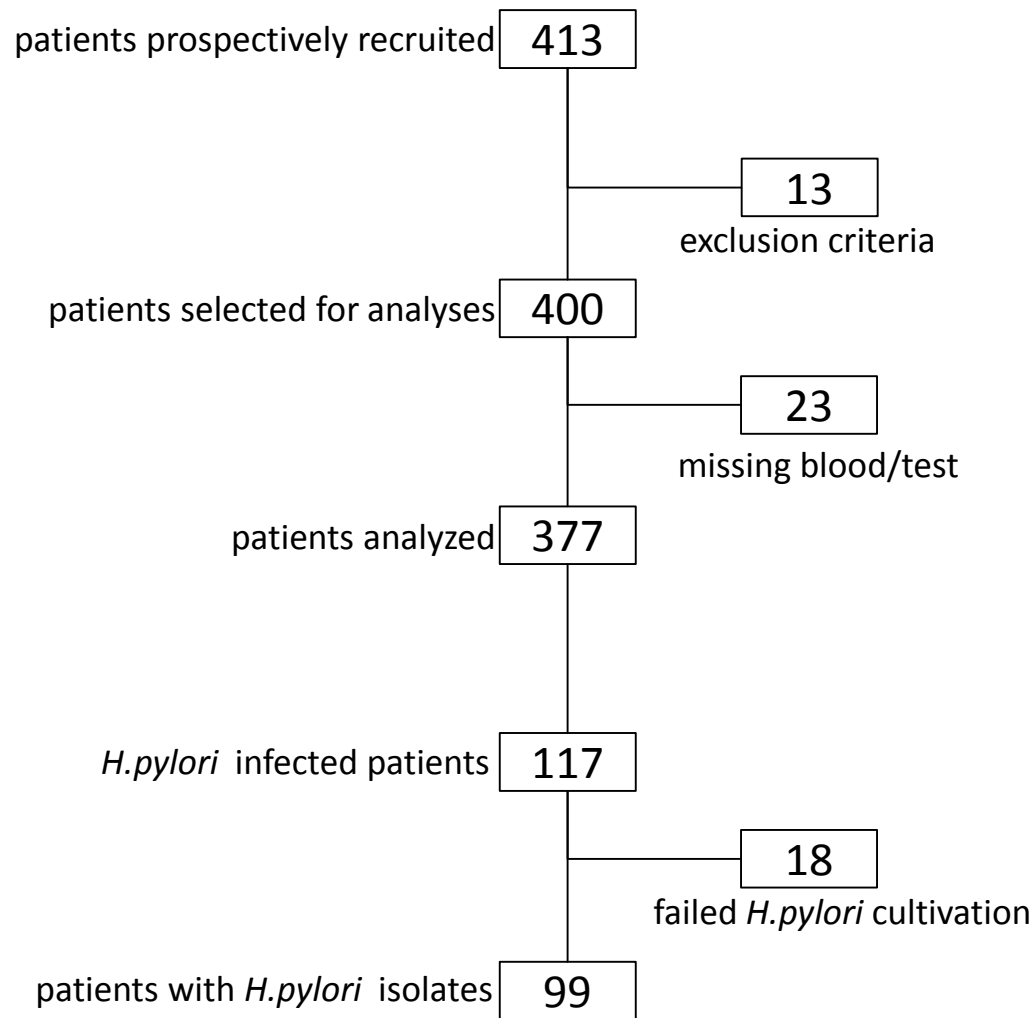
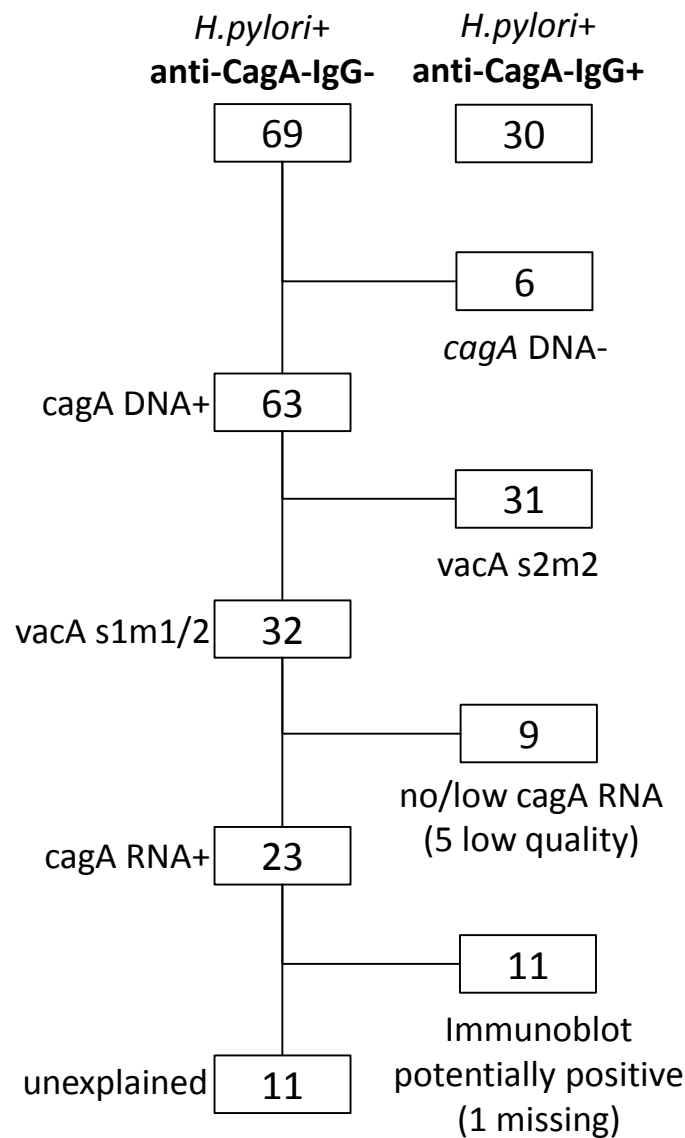


Suppl. Figure S1

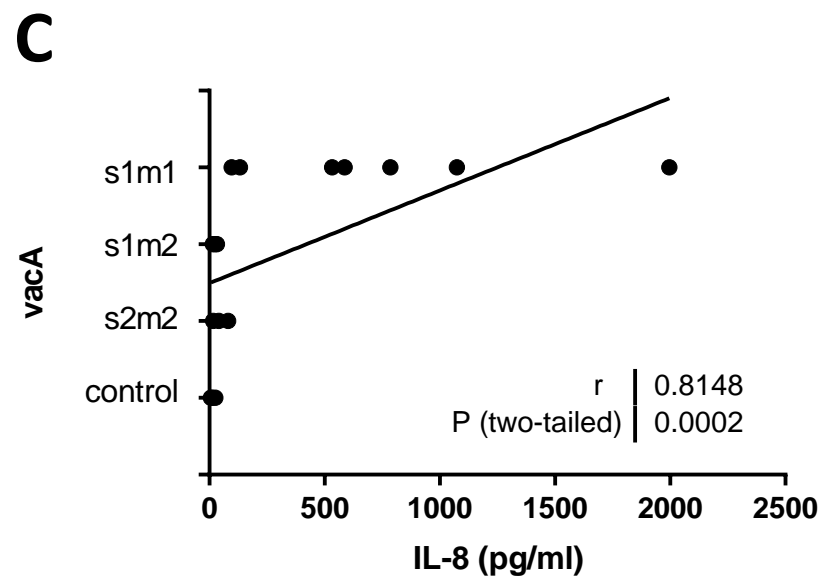
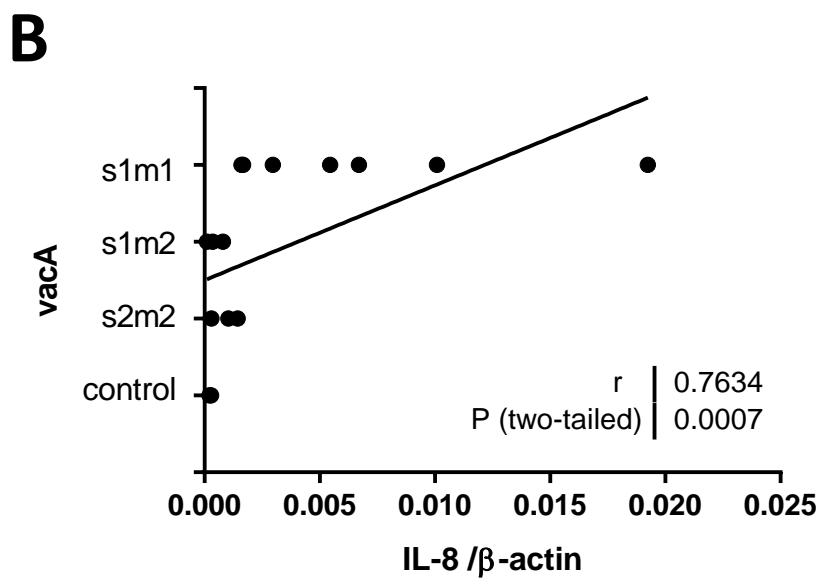
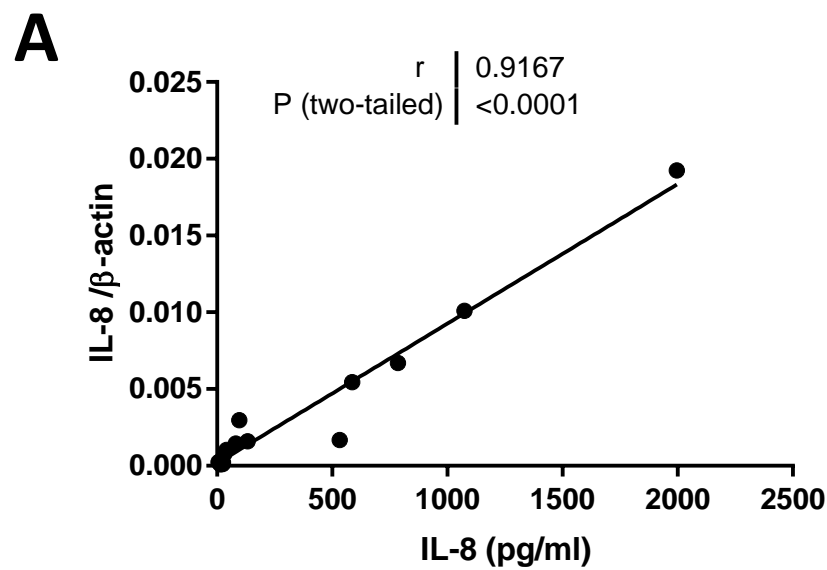
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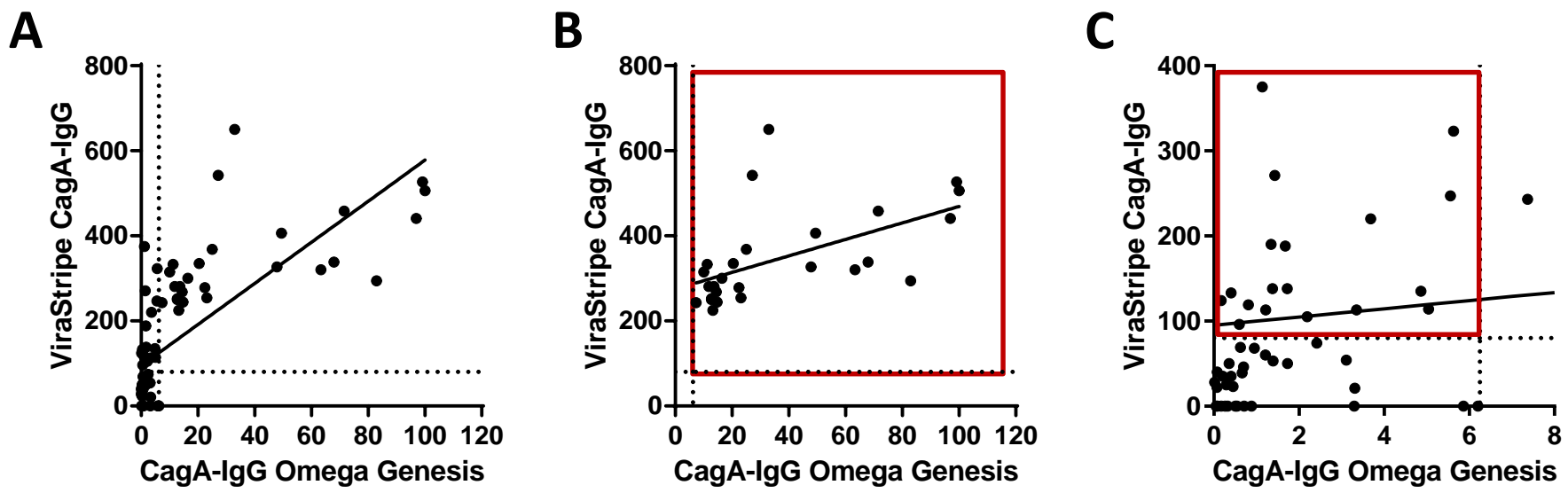


B



Suppl. Figure S2





Suppl. Figure S1. Study design. (A) Number of patients included in the study. (B) Schematic explanation of *H.pylori*+ anti-CagA-IgG negative samples.

Suppl. Figure S2. Correlation between IL-8 mRNA and IL-8 protein expression and *vacA* polymorphisms in AGS co-culturing model. (A) IL-8 mRNA expression of AGS cells was measured using qPCR and normalized to β -actin expression. IL-8 protein was measured in supernatant of AGS cell co-cultivated with *H.pylori* strains. IL-8 mRNA (B) and IL-8 protein expression (C) were correlated with *vacA* polymorphisms. Spearman's test was used for correlation analyses. AGS cells co-cultivated in similar conditions but without *H.pylori* were considered as control.

Suppl. Figure S3. Validation of anti-CagA-IgG ELISA using Immunoblot. To confirm the anti-CagA-IgG titer we performed independent measurement of anti-CagA-IgG using ViraStripe® CagA IgG immunoblot-based method. (A) Correlation between the tests. (B) All samples positive in ELISA showed strong signal with values above 200% of IU, while only few samples with negative results in ELISA showed varying intensities on immunoblot (C). Box highlights the cut offs according to each test (≥ 6.25 U/ml for ELISA and 80% of IU in Immunoblot).

Suppl. Table S1. Primer used for qualitative PCR and quantitative real-time PCR.

Genes		Primer Sequence (5'→3')	Annealing temperature	Product (bp)
<i>cagA</i>^{*1}	F	GATAACAGGCAAGCTTTTGAGG	56°C	349
	R	CTGCAAAAGATTGTTTGGCAGA		
EPIYA Motifs^{*2}	F	ACCCTAGTCGGTAATGGGTTA	50°C	AB 500,
	R	GTAATTGTCTAGTTTCGC		ABC 600, ABCC 700, ABCCC 800 More than one fragment = mixed infection
<i>vacA s</i>^{*3}	F	ATGGAAATACAACAAACACAC	56°C	s1: 259
	R	CTGCTTGAATGCGCCAAAC		s2: 286
<i>vacA m</i>^{*4}	F	CAATCTGTCCAATCAAGCGAG	56°C	m1: 570
	R	GCGTCTAAATAATTCCAAGG		m2: 645
<i>glmM</i>⁵	F	AGGCTTTTAGGGGTGTTAGGGGTTT	56°C	293
	R	AAGCTTACTTTCTAACACTAACGC		
<i>cagE</i>^{*6}	F	TTGAAAACTTCAAGGATAGGATAGAGC	53°C	508
	R	GCCTAGCGTAATATCACCATTACCC		
<i>virB11</i>^{*7}	F	TTAAATCCTCTAAGGCATGCTAC	49°C	491
	R	GATATAAGTCGTTTTACCGCTTC		
β-actin⁸	F	CATGCCATCCTGCGTCTGGACC	60°C	400
	R	ACATGGTGGTGCCGCCAGACA		
IL-8⁹	F	CTTCCTGATTTCTGCAGCTCTG	57°C	193
	R	GAGCTCTCTTCCATCAGAAAGC		

F = forward, R = reverse; *-qualitative PCR.

References: ¹ Peak et al. 1995, ² Yamaoka et al. 1998, ^{3,4} Ryberg et al. 2008, ⁵ Shahamat et al. 2004, ^{6,7} Tomasini et al. 2003, ⁸ Wex et al. 2004, ⁹ Al-Sammak et al. 2013