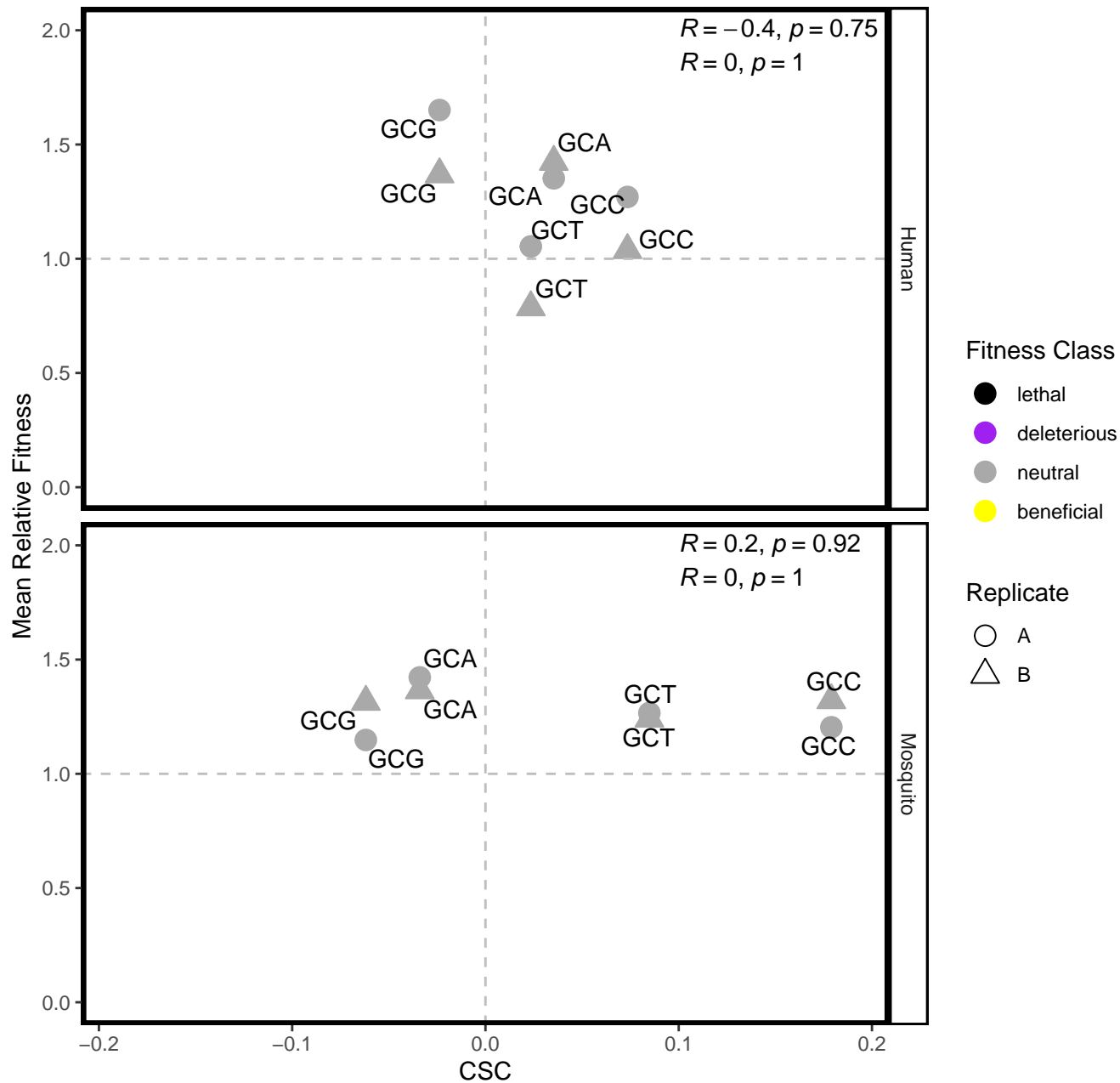


Ala



Arg

Mean Relative Fitness

-0.2

-0.1

CSC

0.0

0.1

0.2

2.0

1.5

1.0

0.5

0.0

 $R = -0.71, p = 0.14$  $R = -0.26, p = 0.66$ 

AGA

AGA

CGC

CGC

AGG

AGG

CGA

CGT

CGT

CGA

CGG

CGG

CGG

CGG

Human

2.0

1.5

1.0

0.5

0.0

 $R = -0.54, p = 0.3$  $R = -0.029, p = 1$ 

CGG

CGG

CGA

CGA

AGG

AGG

CGA

AGG

AGG

CGA

AGG

AGG

AGA

AGA

AGA

AGA

AGA

AGA

AGA

AGA

AGA

CGC

CGC

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Mosquito

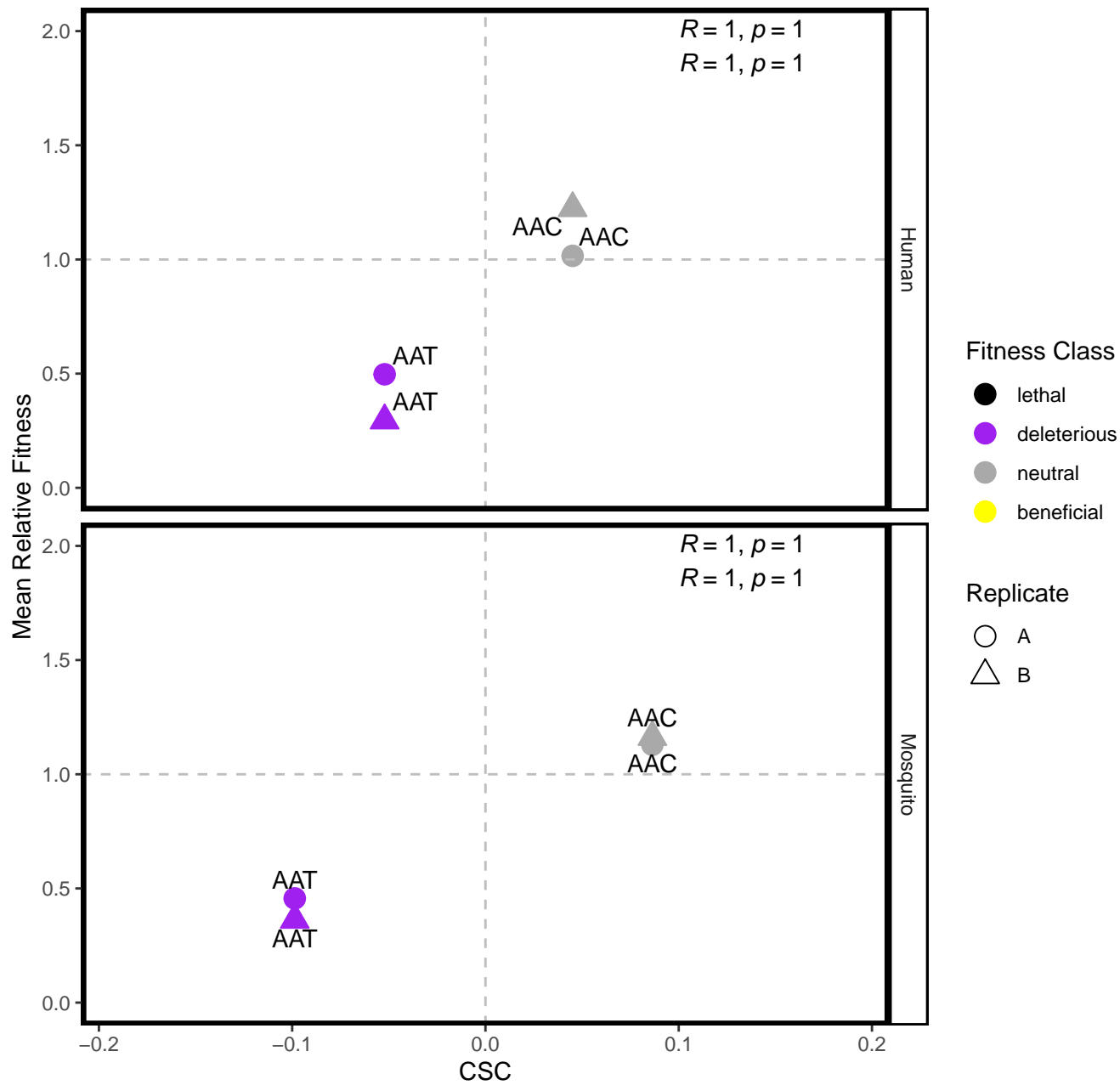
Fitness Class

- lethal
- deleterious
- neutral
- beneficial

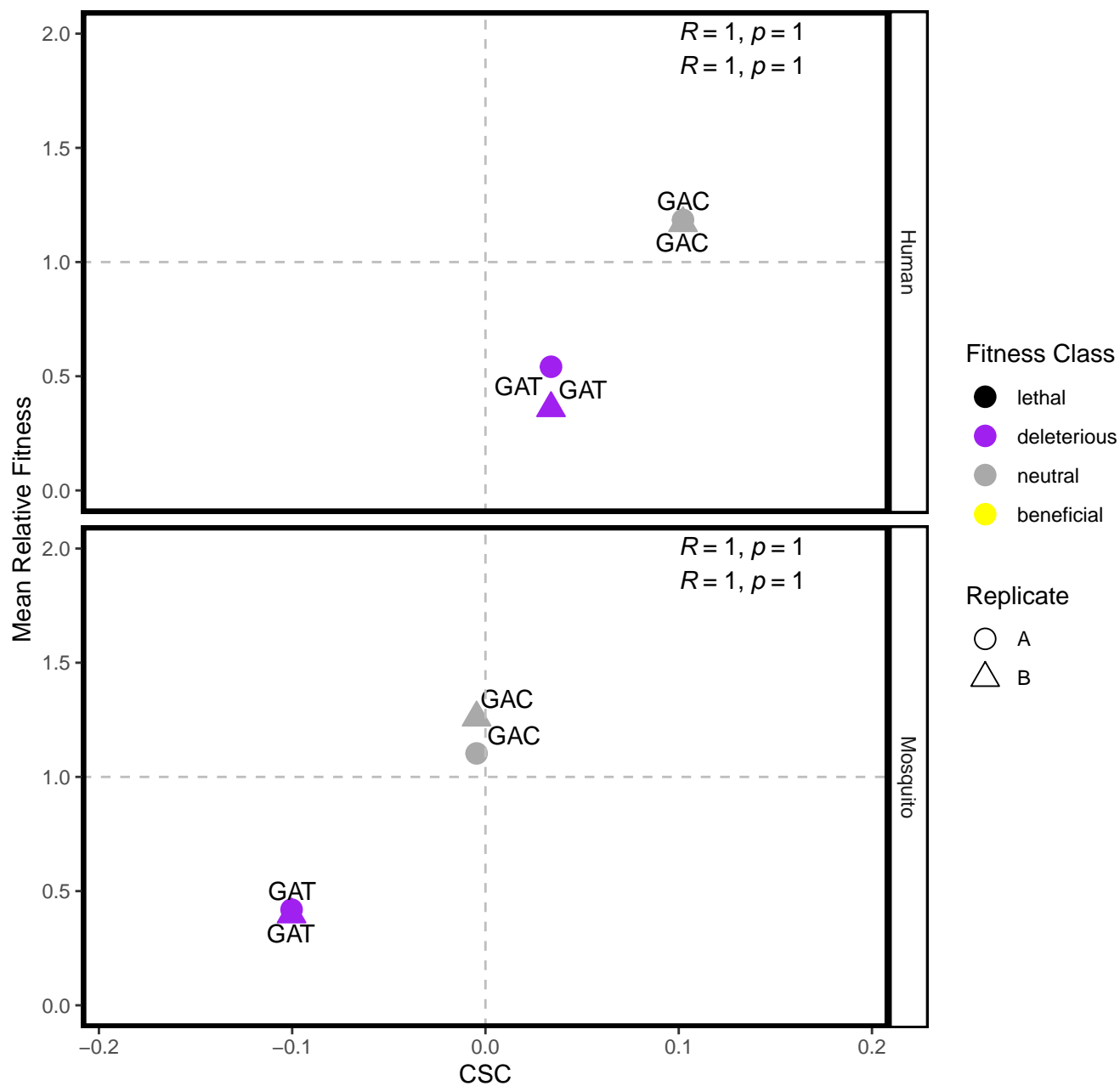
Replicate

- A
- B

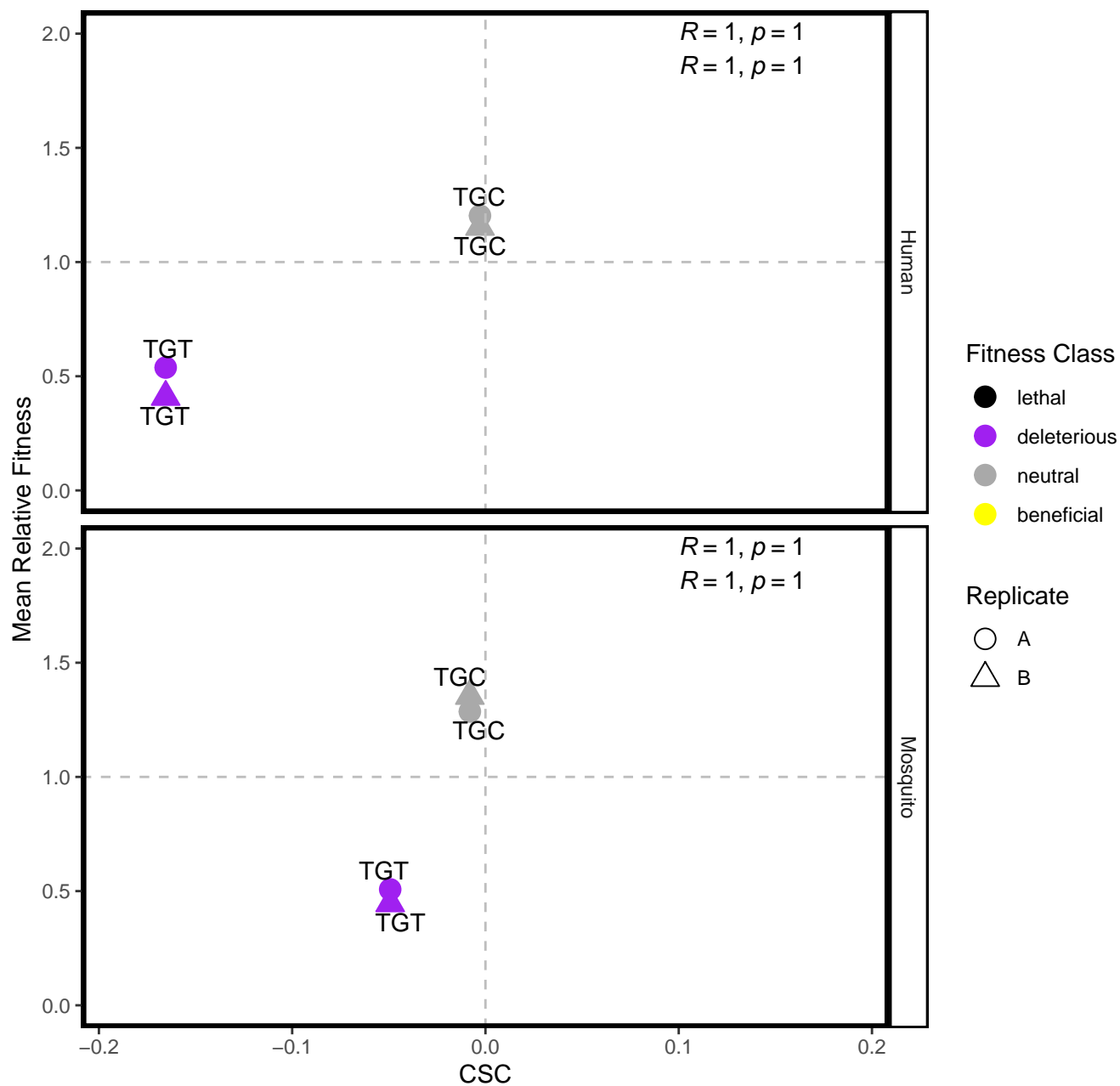
Asn

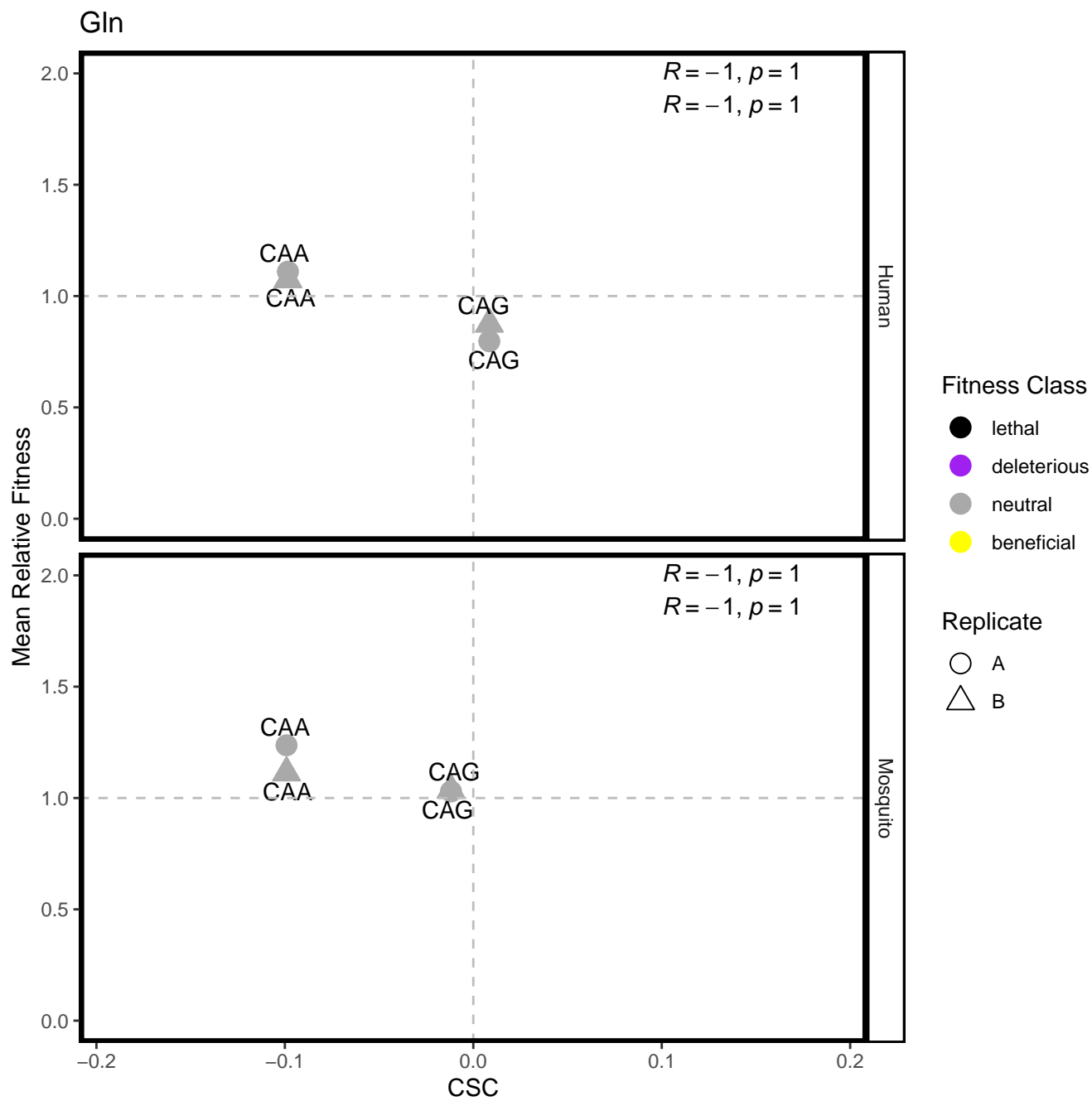


Asp

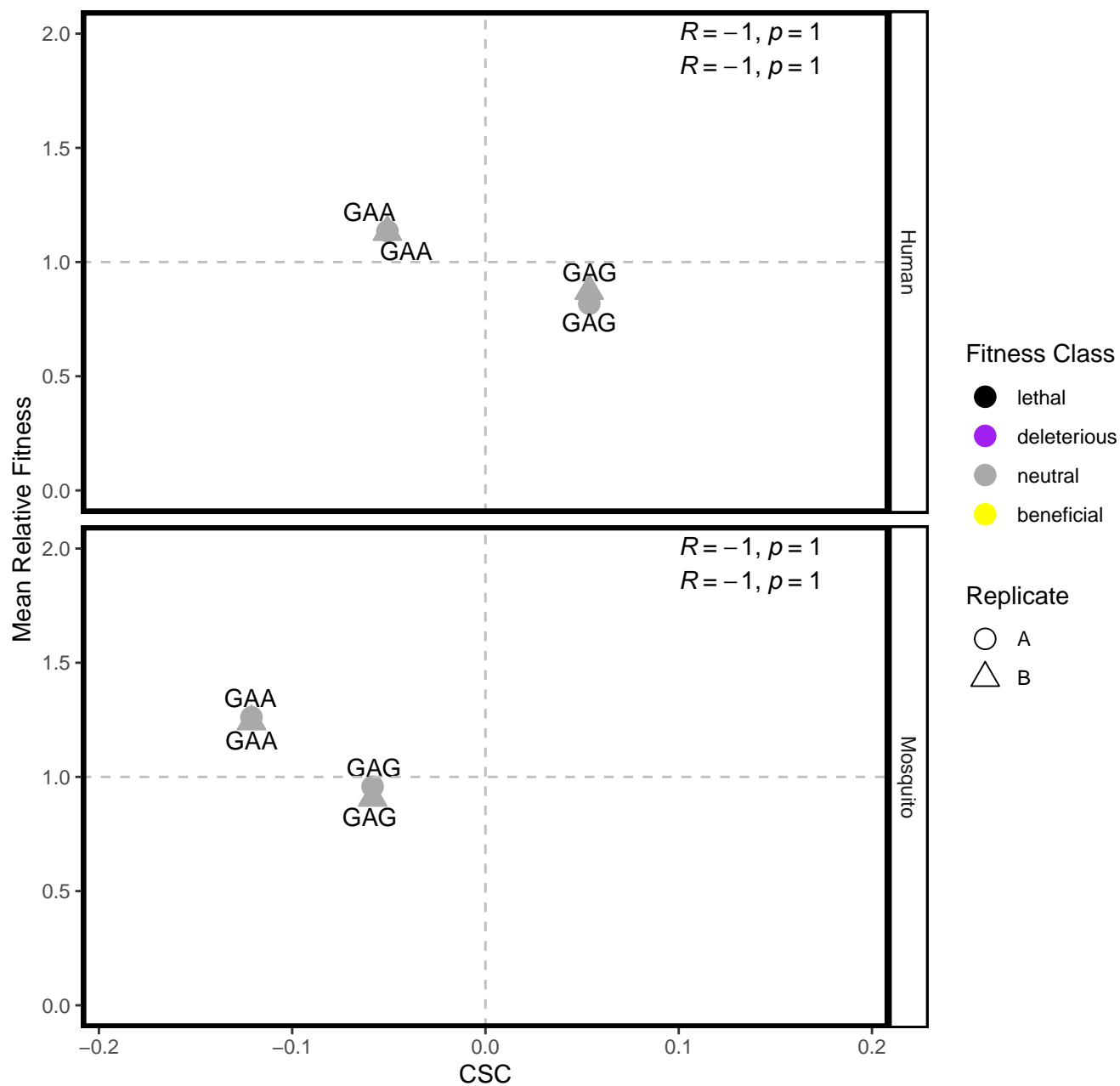


Cys





Glu



Gly

Mean Relative Fitness

$R = 0.2, p = 0.92$   
 $R = 0.2, p = 0.92$

Human

Fitness Class

- lethal
- deleterious
- neutral
- beneficial

Replicate

- A
- △ B

$R = -0.4, p = 0.75$   
 $R = -0.4, p = 0.75$

Mosquito

-0.2

-0.1

CSC

0.1

0.2

0.0

0.5

1.0

1.5

2.0

0.0

0.5

1.0

1.5

2.0

GGA

GGA

GGC

GGC

GGG

GGT

GGG

GGT

$R = -0.4, p = 0.75$   
 $R = -0.4, p = 0.75$

GGG

GGG

GGA

GGA

GGC

GGT

GGC

GGT

GGA

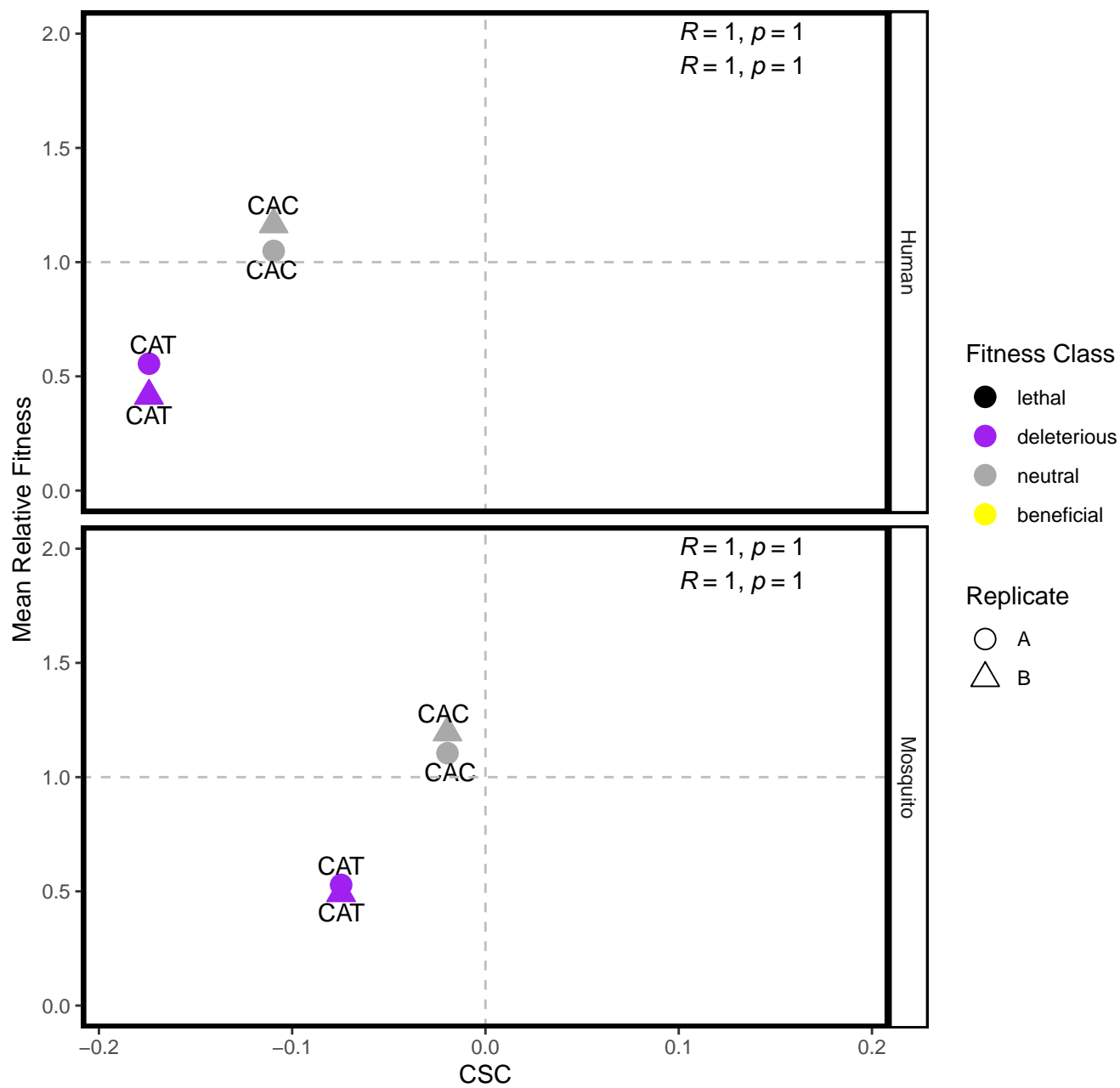
GGA

GGC

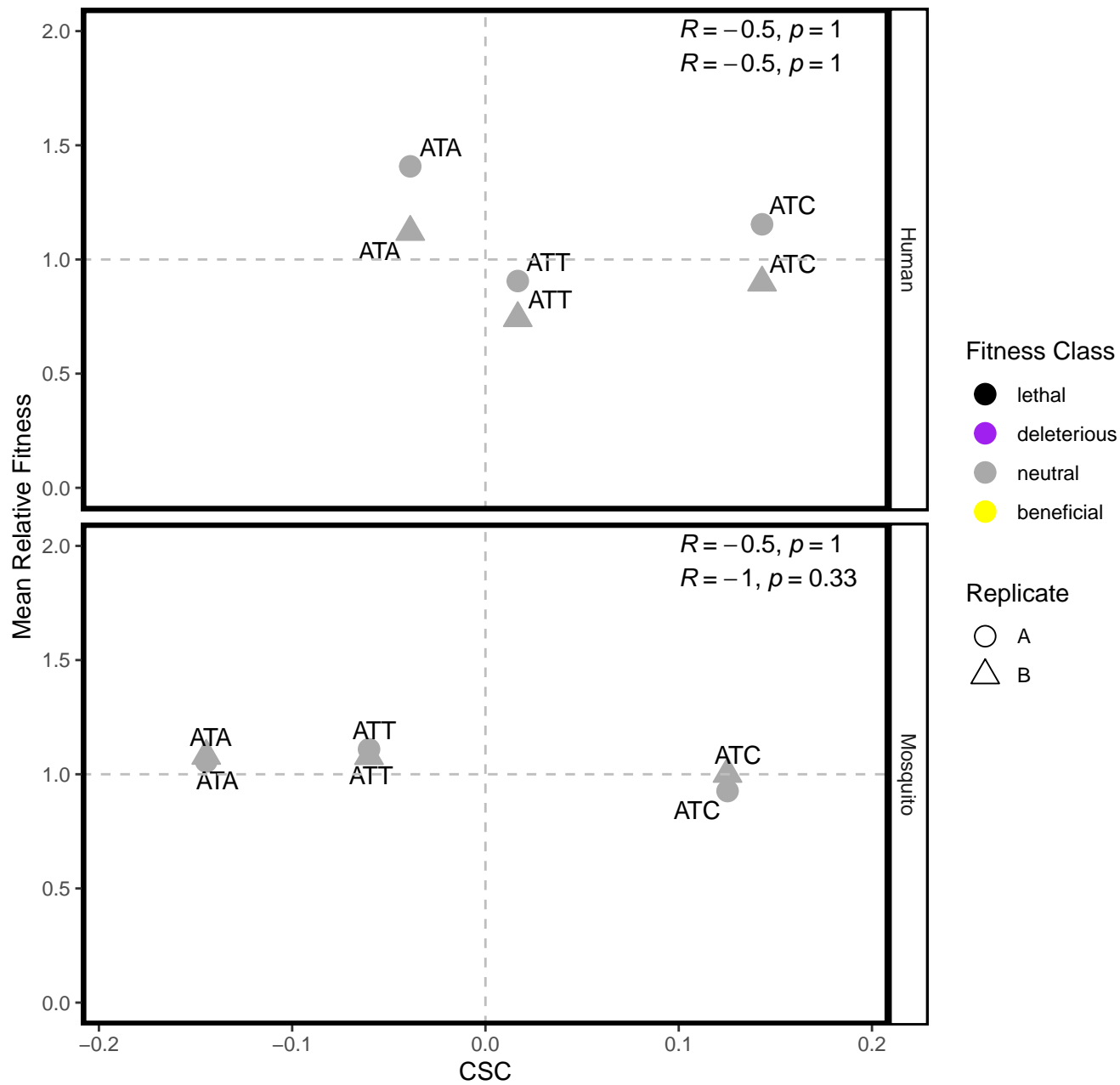
GGT



His

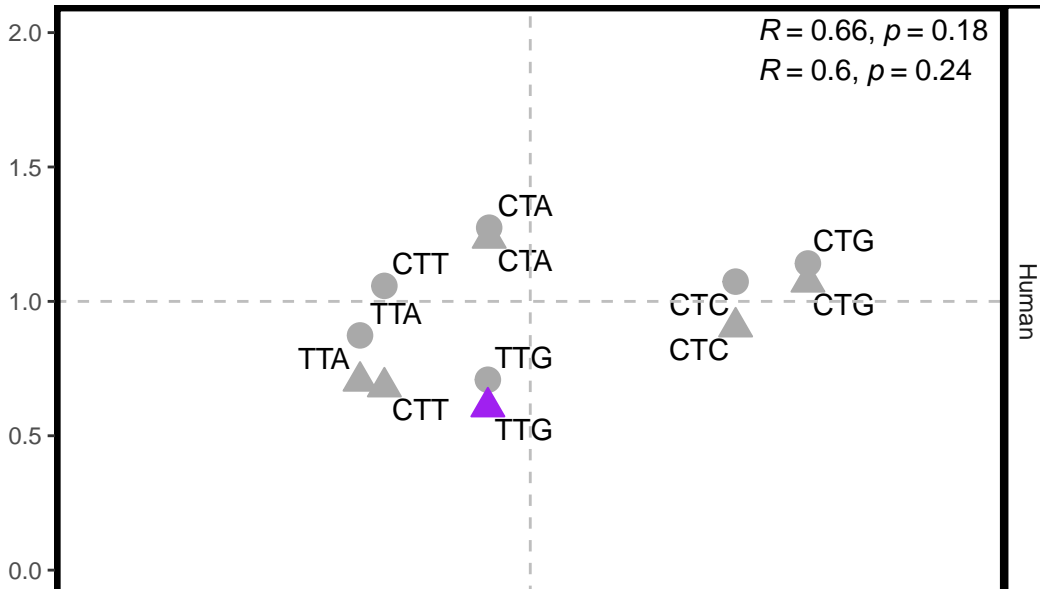


lle



Leu

Mean Relative Fitness

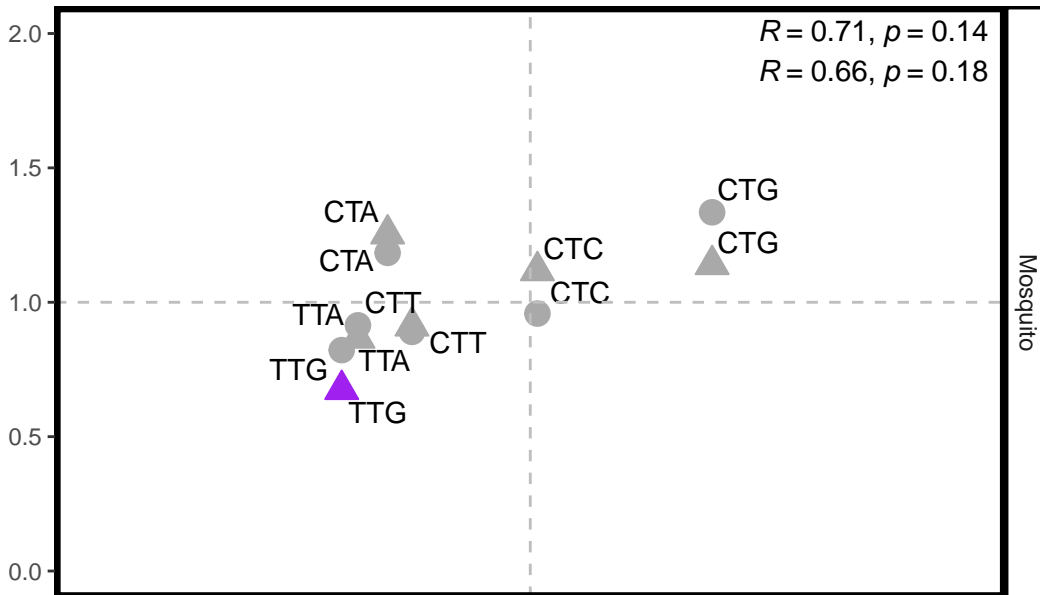


Fitness Class

- lethal
- deleterious
- neutral
- beneficial

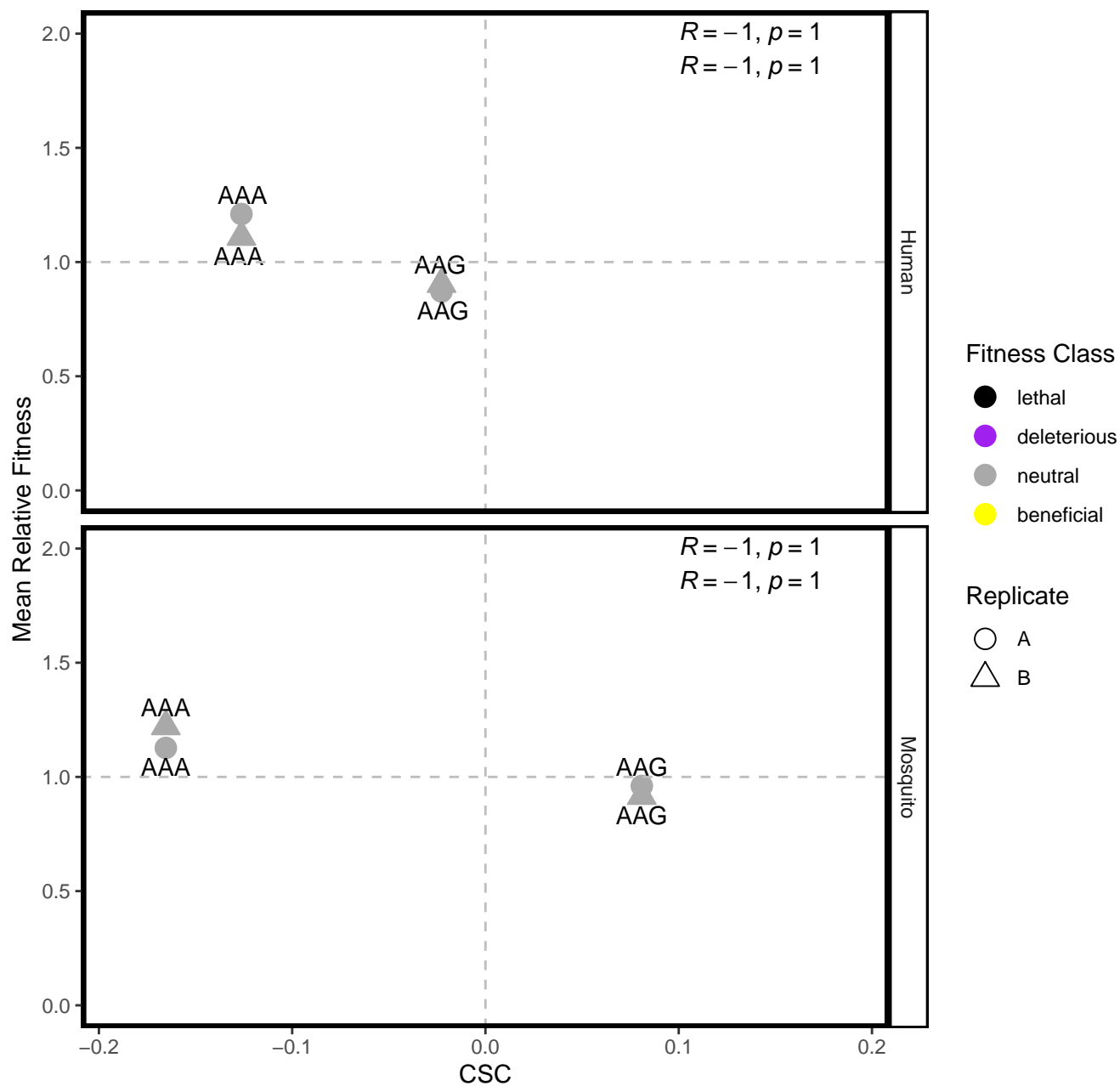
Replicate

- A
- B

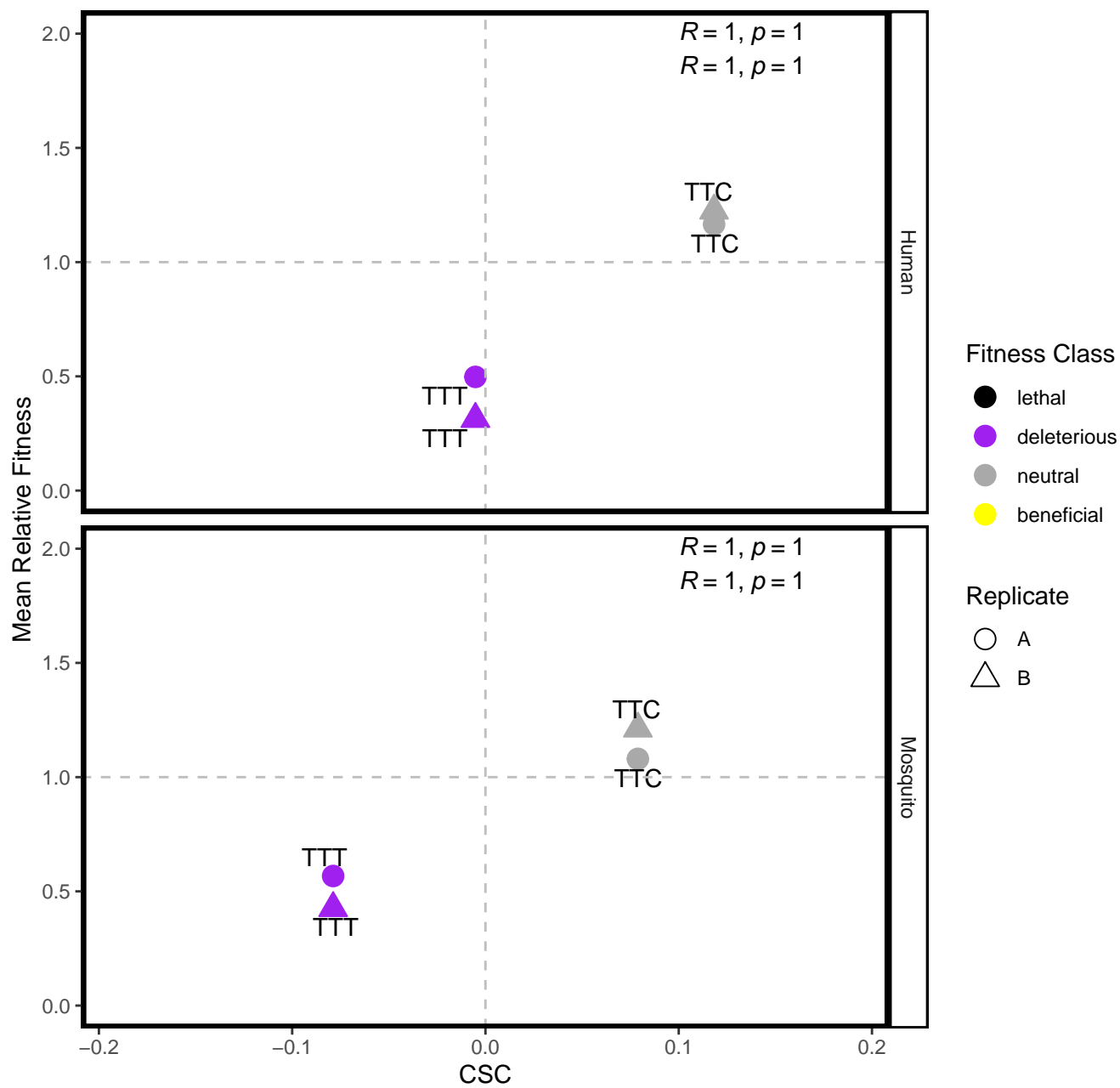


CSC

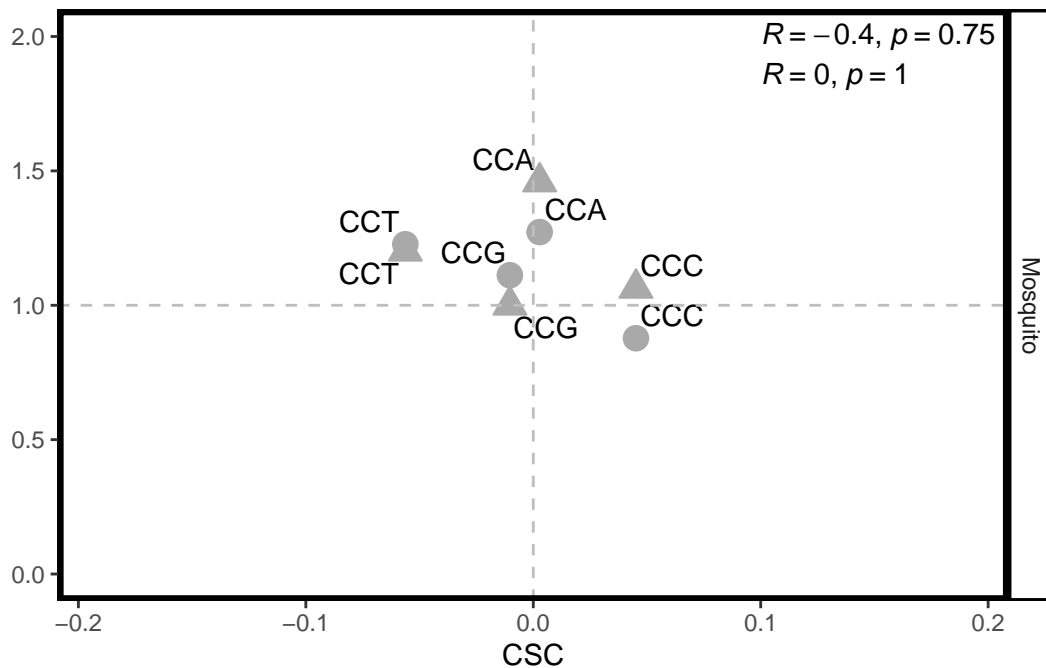
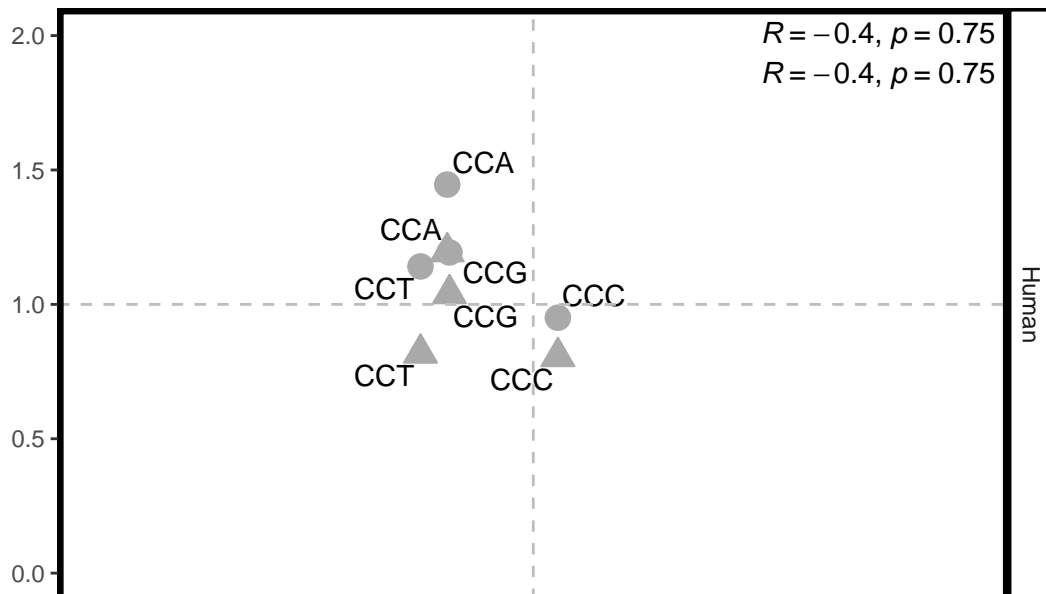
Lys



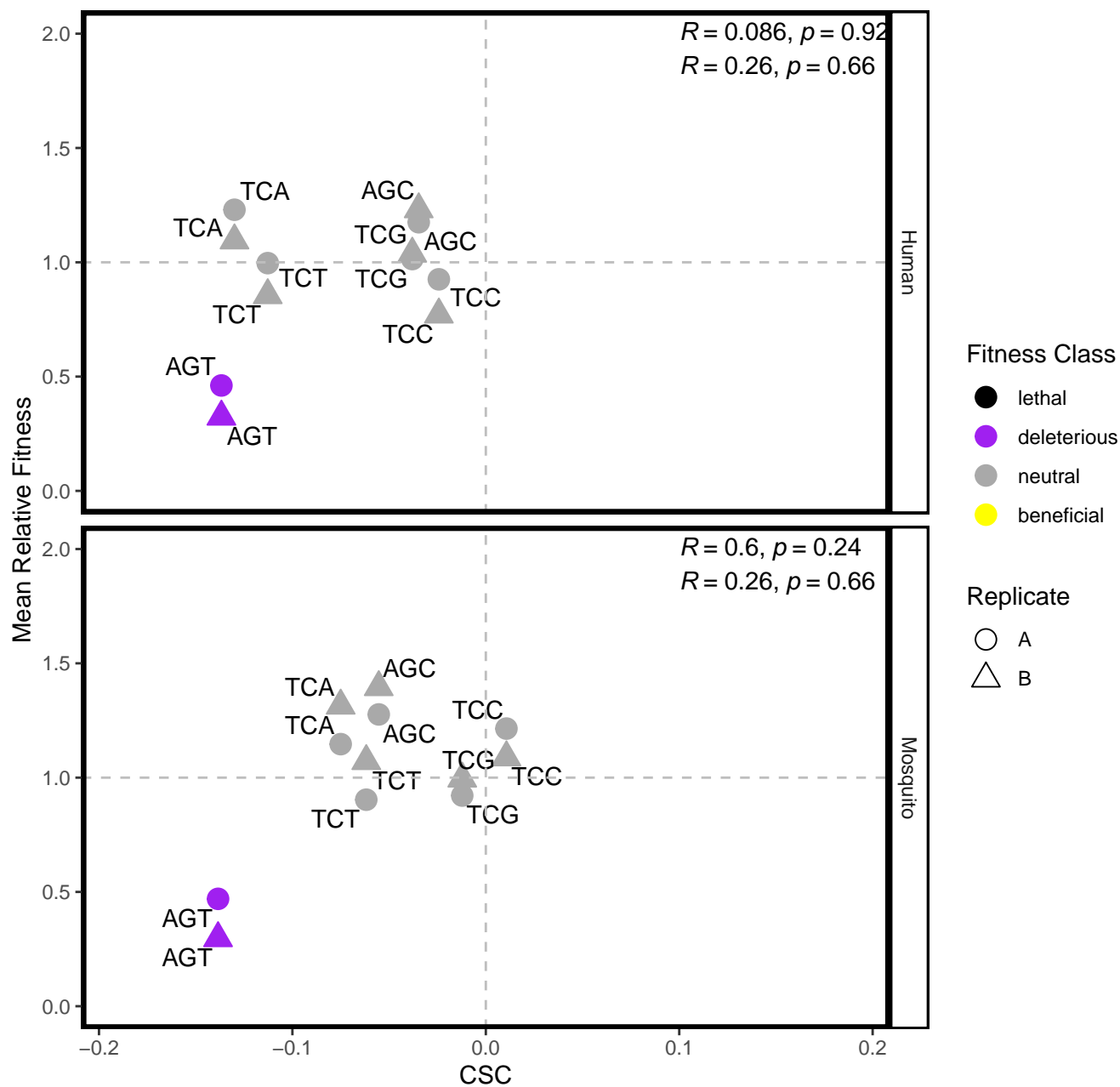
Phe



Pro



Ser



Thr

