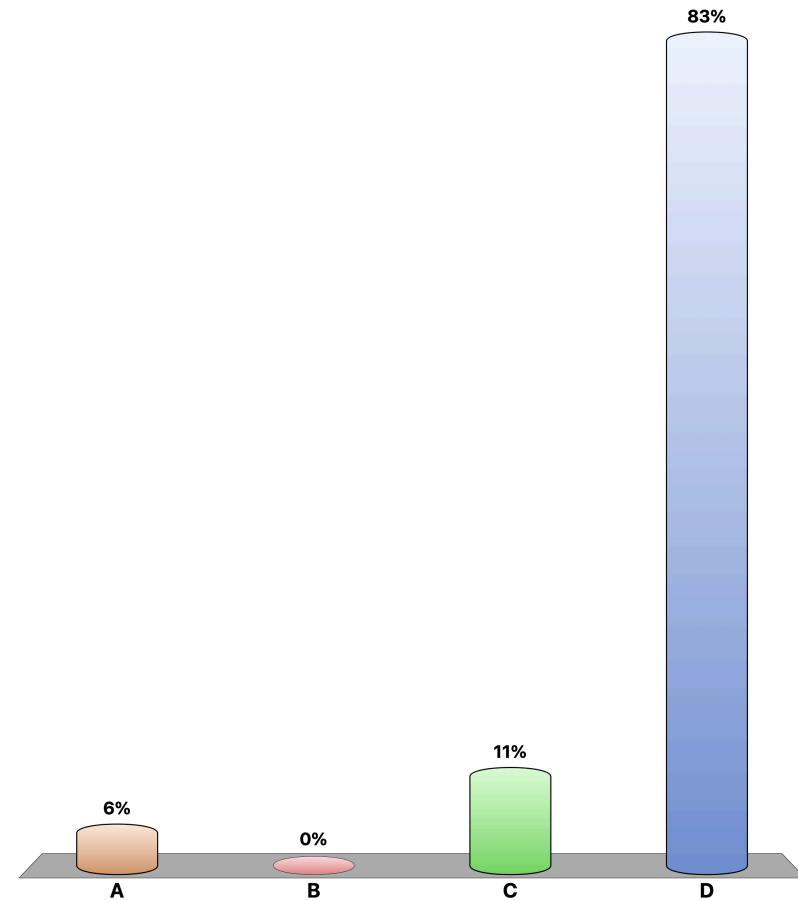


In your opinion, which approach has the best chance to provide therapeutic efficacy ?

- A. Suppress toxic RNA
- B. Silence the toxic dipeptides
- C. Restore physiological C9orf72 expression
- D. A combination of two or more of the treatments above



EPFL Complete the following table, indicating the suitable treatment(s) for each toxic activity of C9orf72:

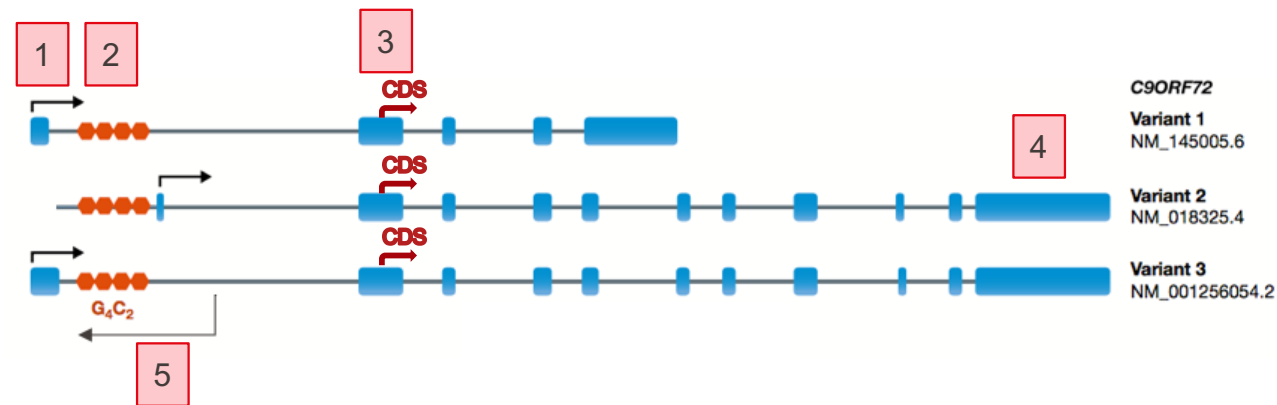
	Cause of toxicity:	RNA foci	Dipeptide expression	Loss of C9orf72 activity
Treatments	Small RNA for RNA interference	✓	✓	May worsen
	Compound inducing autophagy		(✓)	✓
	Antibody		(✓)	
	Gene editing to eliminate the GGGGCC repeats	✓	✓	✓
	Small RNA for exon skipping (splicing modifier)		(✓)	May worsen

■

EPFL C9orf72 pathology: exercise

You plan to design a small RNA to oppose C9orf72 toxicity.

Where in the precursor mRNA do you think that the small RNA should bind (multiple options are possible) ?



- A. 1
- B. 2
- C. 3
- D. 4
- E. 5