A)

- **ER+ (UP)**: $P = 4 \times 10^{-7}$
- **ER+ (DN)**: $P = 5 \times 10^{-13}$
- **ER- (UP)**: $P = 4 \times 10^{-4}$
- **ER- (DN)**: $P = 0.002$

B)

- **ER+ (UP)**: $P = 8 \times 10^{-12}$
- **ER+ (DN)**: $P = 0.561$
- **ER- (UP)**: $P = 8 \times 10^{-4}$
- **ER- (DN)**: $P = 0.67$

C)

- **ER+ (UP)**: $P = 2 \times 10^{-13}$
- **ER+ (DN)**: $P = 1 \times 10^{-8}$
- **ER- (UP)**: $P = 4 \times 10^{-7}$
- **ER- (DN)**: $P = 0.001$