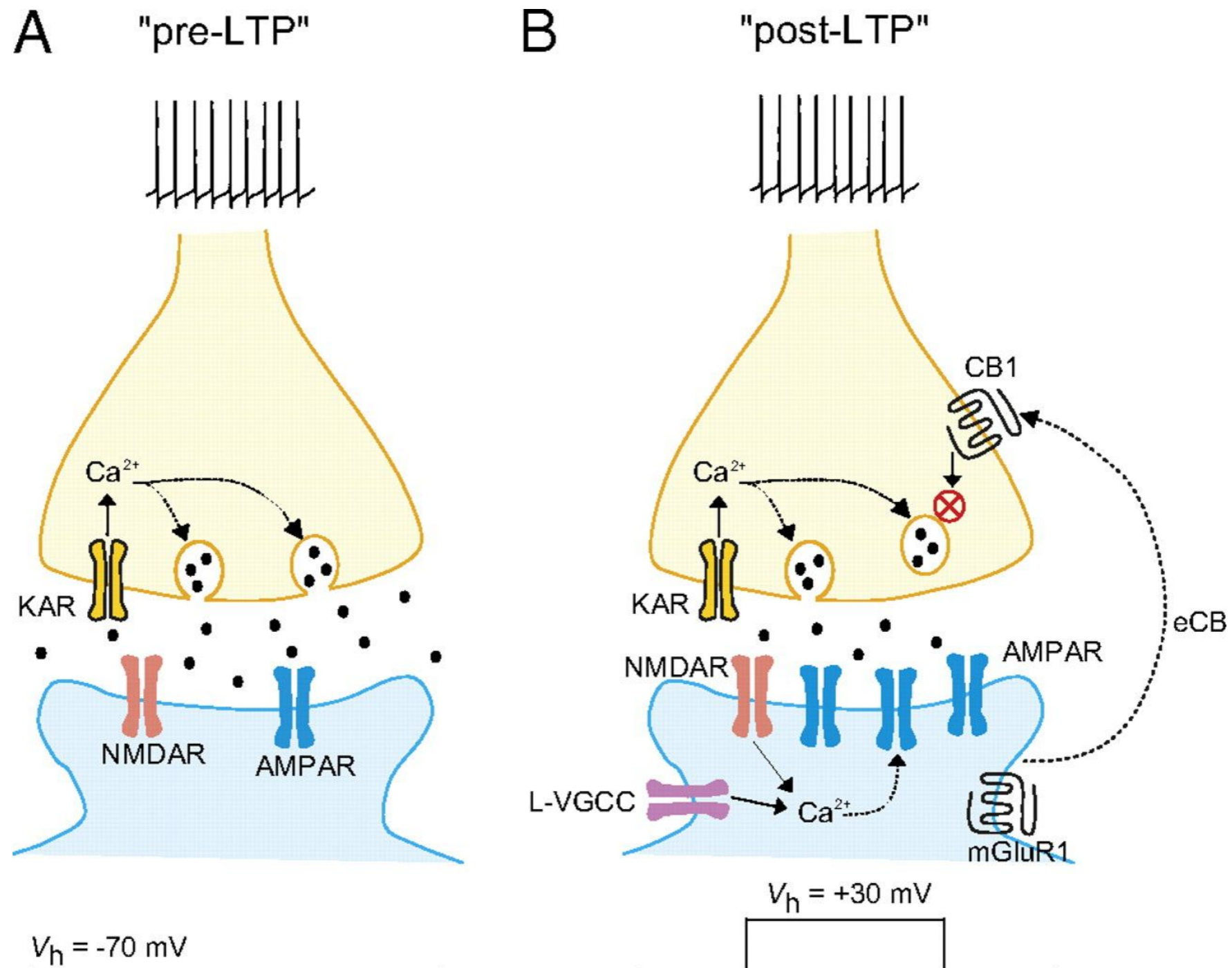


# Comparison of CAMKII alpha mRNA

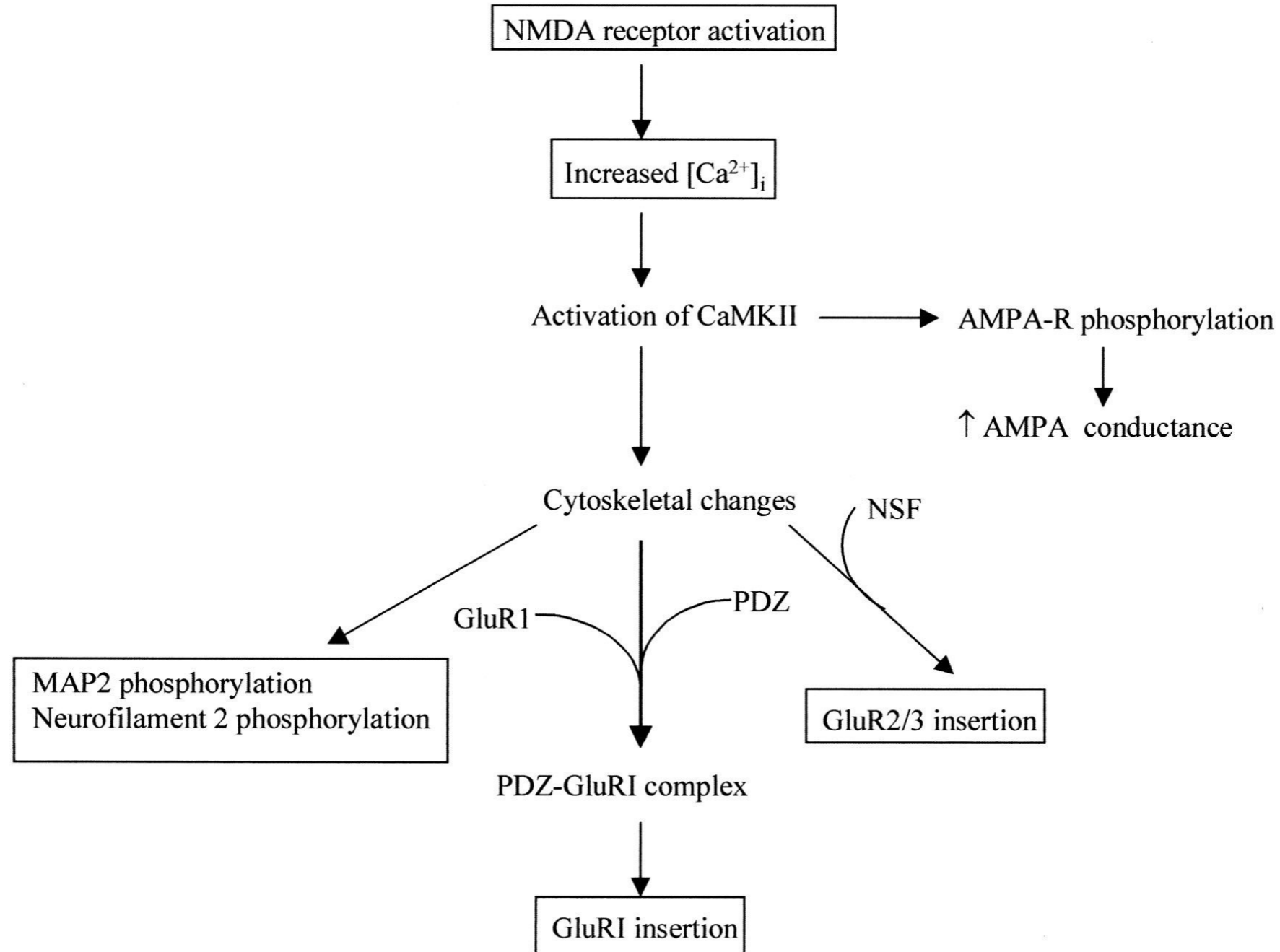
Alexander King

# Long Term Potentiation



Ryong-Moon Shin, Keith Tully, Yan Li, Jun-Hyeong Cho, Makoto Higuchi, Tetsuya Suhara, and Vadim Y. Bolshakov  
**Hierarchical order of coexisting pre- and postsynaptic forms of long-term potentiation at synapses in amygdala**  
 PNAS 2010 107: 19073-19078.

# CaMKII



M. A. LYNCH

**Long-Term Potentiation and Memory**

Physiological Reviews Jan 2004, 84 (1) 87-136; DOI: 10.1152/physrev.00014.2003

# Genetic Alignment for CaMKII Gene

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	Chicken	Human 1	Human 2	Rat
Chicken				
Human 1				
Human 2				
Rat				

# Genetic Alignment for CaMKII Gene

	Chicken	Human 1	Human 2	Rat
Chicken				
Human 1				Highest Score
Human 2				
Rat				

# Genetic Alignment

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	Chicken	Human 2	Rat/Human1
Chicken			
Human 2			
Rat/Human1			

# Genetic Alignment

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	Chicken	Human 2	Rat/Human1
Chicken			
Human 2			Highest Score
Rat/Human1			

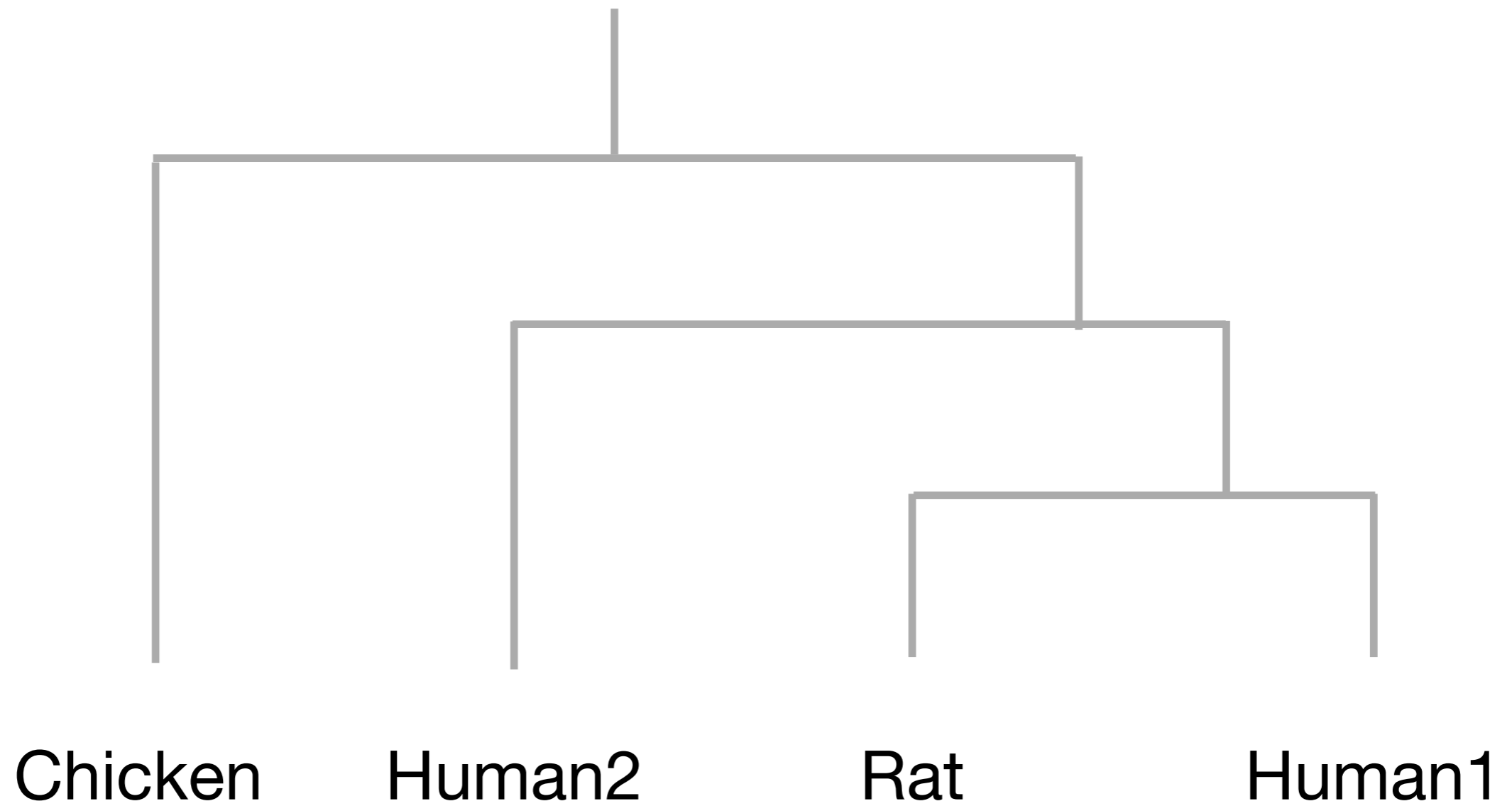
# Genetic Alignment

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	Chicken	Rat/Human1/Human 2
Chicken		
Rat/Human1/Human 2		

# Closeness

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**The two isoforms are  
the result of a very big  
mutation event**

**We need to test the  
structural differences**