

**Supplementary Table S1.** The classifications and characteristics of influenza vaccines referred in this review

Classification		Definition	Composition /Indication	Platform / production technology / design strategy	Approval conditions
Conventional vaccines		Platforms (technologies) in influenza vaccines licensed before 21 <sup>st</sup> century	H5N1; H1N1; H3N2; Yamagata; Victoria	Platform: split (IIV) , subunit (IIV); Production technology: egg-based	Y
Novel vaccines	Current iterative vaccines	Platforms (technologies) in influenza vaccines licensed after 21 <sup>st</sup> century		Platform: LAIV, RIV, new adjuvants; Production technology: cell-based production	
	Next-generation vaccines	Novel platforms (technologies) licensed for other vaccines		Platform: mRNA, viral vector platform etc.	N
	Universal (design) vaccines	Prevent morbidity and mortality caused by all pandemic and emerging influenza A and influenza B viruse subtypes	Protection from all influenza A and influenza B viruse subtypes and long-lasting efficacy (3-5 years)	Platform: VLP, nanoparticle, viral vector and nucliec acid etc.  Design strategy: conserved antigena such as HA stalk, M2e, NP, NA etc.	N