

附表：上市 COVID-19 疫苗之相關專利資訊(2022 年 4 月更新)

Appendix: Patent Information on Commercially Available COVID-19 Vaccines (Updated in April 2022)

已上市 COVID-19 疫苗 Vaccine	國外發明專利案/ 公開案 (我國對應案) International- Invention Patent Number/Publicat ion/ Registration Number of Foreign Patent (Corresponding patent in Taiwan)	申請日 (我國對應案申請日) Application-Date of Filing (Date for corresponding application in Taiwan)	專利狀態 Status	重點技術 Key-Technology_ Technical Field	發明名稱 Name Title-of Invention
BNT162b2	US 2020/0246267 (TW201927288)	2018/10/18 (2018/10/18)	PENDING (審查中) (Patent examination in progress)	Lipids/NP + mRNA (脂質/奈米粒子+信使核 苷酸)	Preparation and Storage of Liposomal RNA Formulations Suitable for Therapy (適用於治療之微脂體RNA配製物的製備及 儲存)
	US 10576146 (無) (None)	2018/3/15	ACTIVE	Lipids/NP + mRNA	Particles Comprising a Shell with RNA
	US 10485884 (無) (None)	2013/3/25	ACTIVE	Lipids/NP + mRNA	RNA Formulation for Immunotherapy

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	US 9950065 (無) (None)	2013/9/26	ACTIVE	Lipids/NP + mRNA	Particles Comprising a Shell with RNA
	US 2020/0155671 (無) (None)	2020/1/22	PENDING	Lipids/NP + mRNA	Particles Comprising a Shell with RNA
	US 2020/0197508 (無) (None)	2018/3/21	PENDING	RNA immune response (RNA 免疫反應)	Methods and Compositions for Stimulating Immune Response
	US 10808242 (無) (None)	2016/8/24	ACTIVE	RNA immunogenicity	Method for Reducing Immunogenicity of RNA
	US 2019/0321458 (無) (None)	2017/7/14	PENDING	PC: Lipids/NP + mRNA	Formulation for Administration of RNA

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	US 11045418 (無) (None)	2016/3/30	ACTIVE	Lipids/NP + mRNA	Lipid Particle Formulations for Delivery of RNA and Water-Soluble Therapeutically Effective Compounds to a Target Cell
	US 11173120 (無) (None)	2015/09/17	ACTIVE	Lipids/NP + mRNA	Stable Formulations of Lipids and Liposomes
	US 2014/0030808 (無) (None)	2011/12/2	ABANDONED	RNA expression (RNA 表現)	Method for Cellular RNA Expression
	US 9636414 (無) (None)	2011/12/15	ACTIVE	Lipids/NP + mRNA	Particles Comprising Single Stranded RNA and Double Stranded RNA for Immunomodulation
mRNA-1273	US 10702600 (TW201729835)	2020/2/28 (2016/10/21)	ACTIVE (未申請實體審查) (Has not applied)	Cationic Lipids/NP + mRNA	Respiratory Virus Vaccines (呼吸道病毒疫苗)

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			for substantive examination)		
	US 10266485 US 10442756 US 9868692 (TWI757248)	2018/6/11 2017/12/18 2017/3/31 (2016/9/19)	ACTIVE ACTIVE ACTIVE (核准審定) (Approved)	Lipids/NP + mRNA	Compounds and Compositions for Intracellular Delivery of Therapeutic Agents (用於細胞內遞送治療劑之化合物及組合物)
	US 10577403 US 10703789 (無) (None)	2019/6/12 2019/6/12	ACTIVE ACTIVE	Lipids/ NP (for use in mRNA vaccine)	Modified Polynucleotides for the Production of Secreted Proteins
JNJ-78436735	US 9701718 (無) (None)	2011/12/14	ACTIVE	腺病毒疫苗 Adenovirus vaccine	Adenovirus Serotype 26 and Serotype 35 Filovirus Vaccines
	US 2018/080010	2017/11/27	PENDING	重組腺病毒載體	Method for the Production of Ad 26

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	(無) (None)			Recombinant adenovirus vector	Adenoviral Vectors
AZD1222	US 9714435 (無) (None)	2012/5/25	ACTIVE	重組腺病毒載體/腺病毒 疫苗 Recombinant adenovirus vector/ adenovirus vaccine	Simian Adenovirus and Hybrid Adenoviral Vectors
NVX-CoV2373	US10953089 (TW 202142555)	2021/03/23 (2021/11/06)	ACTIVE (未申請實體審查) (Has not applied for substantive examination)	冠狀病毒刺蛋白 Coronavirus spike proteins	Coronavirus Vaccine Formulations (冠狀病毒疫苗配製品)
UB-612	WO2021168305 (TW202144384)	2021/02/19 (2021/02/19)	PENDING (審查中) (Patent examination	包括 SARS-CoV-2 棘蛋 白之受體結合區域 RBD 的融合蛋白質	Designer Peptides and Proteins for the Detection, Prevention and Treatment of Coronavirus Disease, 2019 (COVID-19)

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			in progress)	A fusion protein containing the receptor-binding domain (RBD) of the SARS-CoV-2 spike protein	(用於檢測、預防和治療新型冠狀病毒 COVID-19 疾病的設計胜肽及蛋白質)
ARCT-021	US10487105 US10968248 (無) (None)	2017/10/19 2019/10/11	ACTIVE ACTIVE	mRNA Cap	Trinucleotide mRNA Cap Analogs
	EP3773476 (無) (None)	2019/04/01	PENDING	Lipids/ NP (for use in mRNA vaccine)	Lipid Particles for Nucleic Acid Delivery
	US2022096520 (無)	2019/12/06	PENDING	Modified Proteins	Modified Proteins and Associated Methods of Treatment

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	(None)				
	US2021290756 (TW202200605)	2021/03/09 (2021/03/09)	PENDING (未申請實體審查) (Has not applied for substantive examination)	編碼病毒複製蛋白和冠 狀病毒抗原蛋白之核酸 Coded virus replication protein and nucleic acid of coronavirus antigen protein	Coronavirus Vaccine Compositions and Methods (冠狀病毒疫苗組成物和方法)

(更新處以紅字標示)

(Updates are shown in red)