

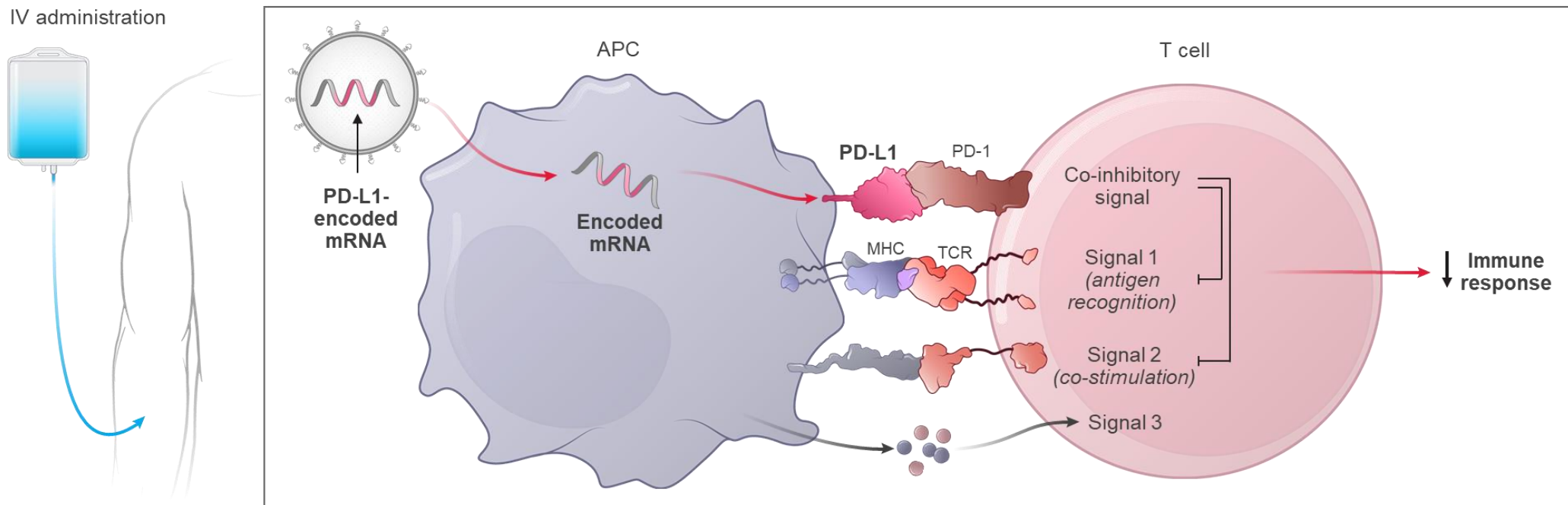
# PD-L1 (mRNA-6981)

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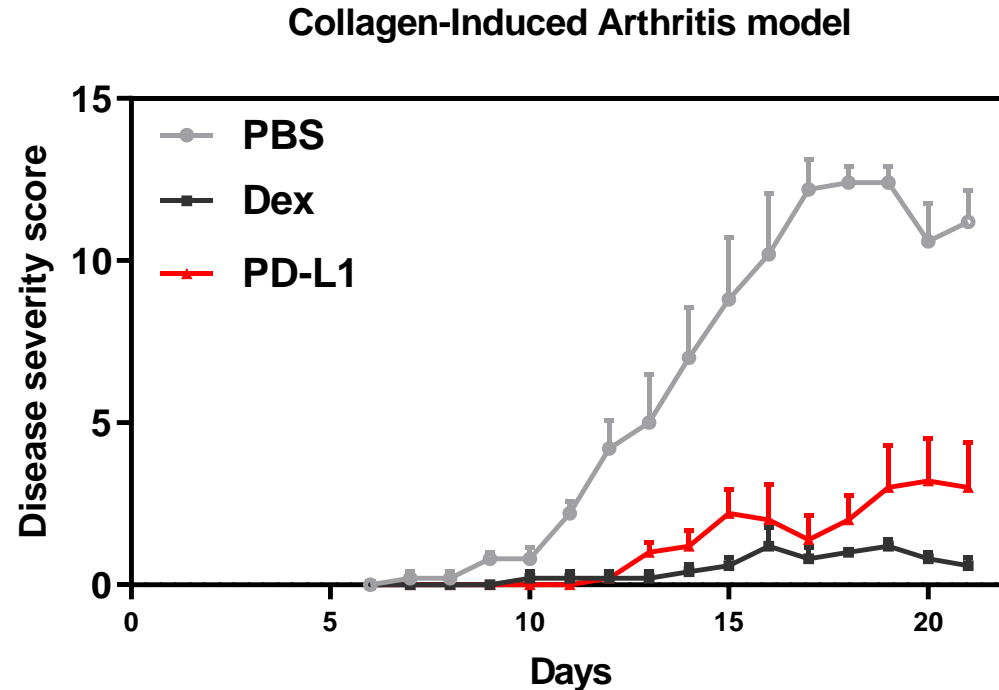
Modality	Program	ID #	Preclinical development	Phase 1	Phase 2	Phase 3	Commercial	Moderna rights
Systemic secreted & cell surface therapeutics	Relaxin <i>Heart failure</i>	mRNA-0184						Worldwide
	PD-L1 <i>Autoimmune hepatitis</i>	<b>mRNA-6981</b>						Worldwide
Cancer vaccines & therapeutics	Individualized neoantigen therapy (INT)	mRNA-4157						50-50 global profit sharing with <b>Merck</b>
	KRAS vaccine	mRNA-5671						Worldwide
	Checkpoint vaccine	mRNA-4359						Worldwide
Intratumoral Immunology	OX40L/IL-23/IL-36γ (Triplet) <i>Solid tumors/lymphoma</i>	mRNA-2752						Worldwide
	Propionic acidemia (PA)	mRNA-3927						Worldwide
Rare disease intracellular therapeutics	Methylmalonic acidemia (MMA)	mRNA-3705						Worldwide
	Glycogen storage disease type 1a (GSD1a)	mRNA-3745						Worldwide
	Ornithine transcarbamylase deficiency (OTC)	mRNA-3139						Worldwide
	Phenylketonuria (PKU)	mRNA-3210						Worldwide
	Crigler-Najjar syndrome type 1 (CN-1)	mRNA-3351						Provided to <b>ILCM</b> free of charge
Inhaled pulmonary therapeutics	Cystic fibrosis (CF)	VX-522						<b>Vertex</b> to pay milestones and royalties

# PD-L1 (mRNA-6981): mRNA-encoded PD-L1 to send a tolerizing signal to immune cells

- We intend to influence myeloid cells to provide additional co-inhibitory signals in the context of immune synapses by augmenting endogenous expression of PD-L1
- We believe that this tolerizing signal to lymphocytes may limit autoreactivity in the context of ongoing autoimmune pathology without severe and global suppression of the immune system
- Employs intravenous administration of the same LNP as our mRNA-encoded antibody, mRNA-1944
- First indication intended to be autoimmune hepatitis, a compelling unmet need



# PD-L1 (mRNA-6981): Preclinical data demonstrates disease modification in arthritis model



Animals treated with PD-L1 mRNA presented with consistently less severe disease

Rats were given a single injection of chicken collagen type II in incomplete Freund's adjuvant in order to induce chronic arthritis-like symptoms. mRNA-6981 dosed subcutaneously four times per week and compared to a negative PBS control and a positive control of daily high dose dexamethasone (Dex). Arthritis-like symptoms included paw swelling and joint rigidity, which were scored as a proxy for disease severity.

# I Forward-looking statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including regarding preclinical studies and the ability of mRNA-encoded PD-L1 to send a tolerizing signal to immune cells. In some cases, forward-looking statements can be identified by terminology such as “may,” “should,” “expects,” “intends,” “plans,” “aims,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue,” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. The forward-looking statements in this presentation are neither promises nor guarantees, and you should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors, many of which are beyond Moderna’s control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks, uncertainties and other factors include those described in Moderna’s most recent Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (SEC) and in subsequent filings made by Moderna with SEC, which are available on the SEC’s website at [www.sec.gov](http://www.sec.gov). Except as required by law, Moderna disclaims any intention or responsibility for updating or revising any forward-looking statements in this presentation in the event of new information, future developments or otherwise. These forward-looking statements are based on Moderna’s current expectations and speak only as of the date referenced on the first page.