(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
02 December 2021 (02.12.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/243298 A1

(51) International Patent Classification:
A61K 39/00 (2006.01) *A61P 29/00* (2006.01)
A61K 39/395 (2006.01) *A61P 35/00* (2006.01)
A61K 45/00 (2006.01) *A61P 35/02* (2006.01)

(21) International Application Number:
PCT/US2021/035011

(22) International Filing Date:
28 May 2021 (28.05.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/704,831 29 May 2020 (29.05.2020) US

(71) Applicants: **CHINOOK THERAPEUTICS, INC.** [US/US]; 1600 Fairview Ave. E., Suite 100, Seattle, Washington 98102 (US). **ADURO BIOTECH HOLDINGS, EUROPE B.V.** [NL/NL]; KLOOSTERSTRAAT 9, 5349 AB OSS (NL).

(72) Inventors: **VAN DE LAAR, Teun**; Bloeymanstraat 8, 5268AX Helvoirt (NL). **HONARMAND, Somayeh**; 17 Overhill Road, Orinda, California 94563 (US). **DULOS, John**; Overste Kamp 3, 6662SN Elst (NL). **DE COCK, Eduard**; Stoldonk 35, 6641LR Beuningen (NL).

(74) Agent: **WHITTAKER, Michael A.**; Acuity Law Group, PC, 12707 High Bluff Drive, Suite 200, San Diego, California 92130 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,

(54) Title: METHODS OF TREATING IGA NEPHROPATHY WITH AN APRIL BINDING ANTIBODY

	Sample	H75 concentration (mg/mL) Turbidity (A330) *Visual appearance** pH														
			−70°C		2–8°C				25°C				45°C		F/T	2–8°C
		t=0	t=6 weeks	t=12 weeks	t=1 week	t=3 weeks	t=6 weeks	t=12 weeks	t=1 week	t=3 weeks	t=6 weeks	t=12 weeks	t=1 week	t=3 weeks	5 cycle	Shake 3 day
	150mM Arginine, 150mM Glutamic acid, 0.01% PS20, pH 6.1	159 0.703 C,Y,NP 6.13	151 0.785 C,Y,NP 6.14	154 0.694 C,Y,NP 6.15	160 0.704 C,Y,NP 6.12	159 0.700 C,Y,NP 6.16	148 0.745 C,Y,NP 6.16	141 0.709 C,Y,NP 6.15	159 0.763 C,Y,NP 6.12	150 0.763 C,Y,NP 6.15	149 0.838 C,Y,NP 6.16	142 0.833 C,Y,NP 6.14	156 0.837 C,Y,NP 6.13	157 0.920 C,Y,NP 6.14	150 0.684 C,Y,NP 6.14	147 0.655 C,Y,NP 6.13
10mM Histidine	55mM Arginine, 55mM Glutamic acid, 3% Sorbitol, 0.01% PS20, pH 6.3	162 0.708 C,Y,NP 6.34	145 0.729 C,Y,NP 6.35	146 0.720 C,Y,NP 6.34	151 0.739 C,Y,NP 6.31	158 0.733 C,Y,NP 6.34	155 0.725 C,Y,NP 6.34	148 0.731 C,Y,NP 6.33	167 0.721 C,Y,NP 6.33	158 0.840 C,Y,NP 6.31	155 0.834 C,Y,NP 6.33	150 0.842 C,Y,NP 6.31	156 0.854 C,Y,NP 6.3	147 0.969 C,Y,P 6.33	153 0.699 C,Y,NP 6.32	144 0.678 C,Y,NP 6.34
	150mM Arginine, 150mM Glutamic acid, 0.01% PS20, pH 6.3	162 0.753 C,Y,NP 6.36	154 0.778 C,Y,NP 6.32	150 0.758 C,Y,NP 6.34	157 0.759 C,Y,NP 6.31	163 0.756 C,Y,NP 6.34	155 0.790 C,Y,NP 6.34	149 0.758 C,Y,NP 6.34	165 0.768 C,Y,NP 6.32	168 0.797 C,Y,NP 6.31	154 0.867 C,Y,NP 6.35	149 0.936 C,Y,NP 6.34	166 0.891 C,Y,NP 6.32	152 1.081 C,Y,P 6.33	163 0.746 C,Y,NP 6.32	158 0.707 C,Y,NP 6.35
	75mM Arginine, 3% Sorbitol, 0.01% PS20, pH 6.1	165 0.753 C,Y,NP 6.14	152 0.795 C,Y,NP 6.15	154 0.763 C,Y,NP 6.14	171 0.758 C,Y,NP 6.12	169 0.763 C,Y,NP 6.15	156 0.793 C,Y,NP 6.13	148 0.763 C,Y,NP 6.13	167 0.750 C,Y,NP 6.11	174 0.847 C,Y,NP 6.11	157 0.843 C,Y,NP 6.12	156 0.838 C,Y,NP 6.12	160 0.961 C,Y,NP 6.09	159 1.024 C,Y,NP 6.13	160 0.735 C,Y,NP 6.13	158 0.702 C,Y,NP 6.14

FIG.1

(57) Abstract: Formulation and use of antibodies which bind human APRIL for the treatment of conditions related to IgA overproduction or deposition, including IgA Nephropathy.

[Continued on next page]

WO 2021/243298 A1

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*