UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SYNAFFIX B.V.

Petitioner

v.

HANGZHOU DAC BIOTECH CO., LTD.,

Patent Owner

Patent No. 10,131,682

Ex Parte Reexamination Certificate Issued: January 4, 2021

Title: HYDROPHILIC LINKERS AND THEIR USES FOR CONJUGATION OF DRUGS TO A CELL BINDING MOLECULES

Inter Partes Review No. IPR2022-01531

PETITIONER'S UPDATED EXHIBIT LIST

EXHIBIT LIST

Ex. #	Exhibit	Served	Filed
EX1001	U.S. Patent No. 10,131,682 ("the '682 Patent")	X	X
EX1002	Ex Parte Reexamination Certificate for the U.S. Patent No. 10,131,682 ("the '862 REC")	X	X
EX1003	Declaration of Dr. Ravi Chari	X	X
EX1004	Curriculum Vitae of Dr. Ravi Chari	X	X
EX1005	Morales-Sanfrutos *et al*., "Vinyl sulfone bifunctional tag reagents for single-point modification of proteins," *The Journal of Organic Chemistry* 75, no. 12 (2010): 4039-4047 ("Morales-Sanfrutos")	X	X
EX1006	Straus & Keller, "Unusual Binding Sites for Horseradish Peroxidase on the Surface of Cultured and Isolated Mammalian Cells," *Histochemistry* 85, July 1986, pages 277-285 ("Straus")	X	X
EX1007	International Publication No. WO 1995/013312 ("Harris")	X	X
EX1008	U.S. Patent Publication No. 2010/0129314 ("Singh")	X	X
EX1009	U.S. Patent No. 5,208,020 ("Chari-1")	X	X
EX1010	U.S. Patent No. US 5,414,135 ("Snow")	X	X
EX1011	U.S. Patent Application Publication No. 2011/0301334 ("Bhakta")	X	X
EX1012	Declaration of Dr. James Mullins	X	X
EX1013	Curriculum Vitae of Dr. James Mullins	X	X
EX1014	Thomas *et al*., "Application of Strain-Promoted Azide-Alkyne Cycloaddition and Tetrazine Ligation to Targeted Fc-Drug Conjugates," *Bioconjug Chem*., 23(10), October 2012, pages 2007–2013 ("Thomas")	X	X

Ex. #	Exhibit	Served	Filed
EX1015	Kathrin-Maria Roy *et al,* Sulfones and Sulfoxides, *Ullmann's Encyclopaedia of Industrial Chemistry*, Vol. 34, page 571 (2003) ("Roy")	X	X
EX1016	Zhao et al., Synthesis and Evaluation of Hydrophilic Linkers for Antibody_Maytansinoid Conjugates, *J. Med. Chem*. 2011, 54, 3606–3623 ("Zhao")	X	X
EX1017	U.S. Patent No. 6,214,345 ("Firestone")	X	X
EX1018	Prosecution History excerpts for US 10,131,682	X	X
EX1019	Excerpts for File Wrapper of Ex Parte Reexamination No. 90/014,390	X	X
EX1020	WTS scan of Morales-Sanfrutos from Linda Hall Library (A-1)	X	X
EX1021	Download of Morales-Sanfrutos from Purdue U. Libraries (A-2)	X	X
EX1022	WorldCat entry for Morales-Sanfrutos (A-3)	X	X
EX1023	Download of Morales-Sanfrutos from Linda Hall Library OPAC (A-4)	X	X
EX1024	Morales-Sanfrutos ACS Digital Publication record (NEW A-5)	X	X
EX1025	WTS Scan of Strauss from Linda Hall Library (B-1)	X	X
EX1026	Download of Strauss from Purdue University Libraries (B-2)	X	X
EX1027	WorldCat entry for Strauss (B-3)	X	X
EX1028	Download of Linda Hall Library OPAC record for Strauss (B-4)	X	X
EX1029	WTS Scan of Thomas from Linda Hall Library (C-1)	X	X

Ex. #	Exhibit	Served	Filed
EX1030	Download of Thomas from Purdue University Libraries (C-2)	X	X
EX1031	WorldCat entry for Thomas (C-3)	X	X
EX1032	Download of Linda Hall Library OPAC record for Thomas (C-4)	X	X
EX1033	Thomas ACS Digital Publication record (C-5)	X	X
EX1034	Scan of Roy from Linda Hall Library (D-1)	X	X
EX1035	Screenshot of link to Roy via Purdue University Libraries (D-2)	X	X
EX1036	Download of Roy from Purdue University Libraries (D-3)	X	X
EX1037	WorldCat entry for Roy (D-4)	X	X
EX1038	Monographic record for Roy at Linda Hall Library (D-5)	X	X
EX1039	Roy Digital Publication Record (D-6)	X	X
EX1040	Scan of Zhao from National Library of Medicine	X	X
EX1041	Download of Zhao from Purdue University Libraries (E-2)	X	X
EX1042	Download of WorldCat entry for Zhao (E-3)	X	X
EX1043	Download of National Library of Medicine OPAC record for Zhao (E-4)	X	X
EX1044	Zhao ACS Digital Publication record (E-5) Screen capture of https://pubs.acs.org/doi/abs/10.1021/jm2002958	X	X
EX1045	Certified translation of priority French Application No. FR 10/52589, filed 6 April 2010	X	X
EX1046	International Publication No. WO2011124571	X	X
EX1047	U.S. Patent No. 5,122,614 (“Zalipsky”)	X	X
EX1048	Boja & Fales, *Anal. Chem*. 2001, 73, pages 3576-3582 (“Boja”)	X	X

Ex. #	Exhibit	Served	Filed
EX1049	Lewis Phillips *et al., Cancer Res* (2008) 68 (22): 9280–9290	X	X
EX1050	U.S. Patent No. 8,236,319 ("Chari-2")	X	X
EX1051	Pietersz *et al*., *Advances in Immunology* Vol. 56: 301-387 (1994).	X	X
EX1052	Trail & Bianchi, *Current Opinion in Immunology* 11:584–588 (1999).	X	X
EX1053	Ghose *et al*., *Journal of the National Cancer Institute*, Vol. 61(3): 657–676 (1978) ("Ghose")	X	X
EX1054	Panousis & Pietersz, *Drugs & Aging* 15 (1): 1-13 (1999)	X	X
EX1055	Alley *et al., Bioconjug Chem*. 2008 Mar;19(3):759-65.	X	X
EX1056	SGEN Doronina Nat biotech	X	X
EX1057	Screencapture Wayback Machine Bioconjugate Chemistry	X	X
EX1058	Condensed Transcript of Teleconference with Board on July 3, 2023	X	X
EX1059	Decision Granting Rehearing in IPR2022-01531	X	X
EX1060	Diagram of Chemical Structure	X	X
EX1061	Diagram of Chemical Structure	X	X
EX1062	Diagram of Chemical Structure	X	X
EX1063	Lawrence Nathan Tumey, PhD. 2-25-2025 Deposition Transcript	X	X
EX1064	Dondoni *et al*., "A New Ligation Strategy for Peptide and Protein Glycosylation: Photoinduced Thiol–Ene Coupling," *Chem. Eur. J.* 2009, 15, 11444 – 11449	X	X

Ex. #	Exhibit	Served	Filed
EX1065	Wang *et al.*, "Binding of Serum Albumin on Tumor Cells and Characterization of the Albumin Binding Protein," *J. Biochem*. 115, 898-903 (1994)	X	X
EX1066	Nakamura, *et al.*, "Water-soluble Taxol Conjugates with Dextran and Targets Tumor Cells by Folic Acid Immobilization," *ANTICANCER RESEARCH* 30: 903-910 (2010)	X	X
EX1067	Lamarque *et al.*, "Copper catalyzed 1,3-dipolar cycloaddition reaction of azides with N-(2-trifluoroacetylaryl)propargylamines A mild entry to novel 1,4-disubstituted-[1,2,3]-triazole derivatives," *Journal of Fluorine Chemistry* 129 (2008) 788–798	X	X
EX1068	Wang *et al.*, "Rapid Assembly of Matrix Metalloprotease Inhibitors Using Click Chemistry," *Organic Letters* (2006) Vol. 8, No. 17 3821-3824	X	X
EX1069	Nairn *et al*., "Development of Copper-Catalyzed Azide−Alkyne Cycloaddition for Increased in Vivo Efficacy of Interferon β-1b by Site-Specific PEGylation," *Bioconjugate Chem.* 2012, 23, 2087−2097	X	X
EX1070	Meldal *et al.,* "Cu-Catalyzed Azide-Alkyne Cycloaddition," *Chem. Rev.* 2008, 108, 2952–3015	X	X
EX1071	Ponchon *et al.,* "Encapsidation and transfer of phage DNA into host cells: From in vivo to single particles studies," *Biochimica et Biophysica Acta* 1724 (2005) 255 – 261	X	X
EX1072	Wang *et al*., "Bioconjugation by Copper(I)-Catalyzed Azide-Alkyne [3 + 2] Cycloaddition," *J. AM. CHEM. SOC*. 2003, 125, 3192-3193	X	X

Ex. #	Exhibit	Served	Filed
EX1073	International Publication No. WO 02/087497 A2 ("LI, Chun")	X	X
EX1074	Jamur *et al.*, "Cell Fixatives for Immunostaining, Chapter 8," *Immunocytochemical Methods and Protocols, Methods in Molecular Biology*, Vol. 588	X	X
EX1075	Declaration of Dr. Sheila Baker	X	X
EX1076	Reply Declaration of Dr. Ravi Chari	X	X
EX1077	George *et al.,* "Taxol Photoaffinity Labels 2. Synthesis and Biological Evaluation of N-(4=Azidobenzoyl)-*N*-debenzoyltaxol," *Bioorganic & Medicinal Chemistry Letters,* Vol. 4. No. 3. pp. 487-490, 1994	X	X
EX1078	European Patent Specification EP 2 922 818 B1 patent	X	X
EX1079	EPO Board Decision	X	X
EX1080	Auxiliary Request 6 (clean)	X	X
EX1081	Auxiliary Request 6 (redline)	X	X
EX1082	Appeal minutes	X	X
EX1083	Yu *et al.,* "Synthesis and Biological Activities of a 3'-Azido Analogue of Doxorubicin Against Drug-Resistant Cancer Cells," *Int. J. Mol. Sci.* 2012, *13*, 3671-3684	X	X
EX1084	Huang *et al.,* "Copper-free click conjugation of methotrexate to a PAMAM dendrimer platform," Tetrahedron Letters 52 (2011) 1411–1414	X	X
EX1085	Supplemental Declaration of Dr. Sheila Baker	X	
EX1086	Supplemental Declaration of Dr. Ravi Chari	X	
EX1087	Sheila Baker, PhD. 4-9-2025 Deposition Transcript	X	X

Ex. #	Exhibit	Served	Filed
EX1088	EPO Boards of Appeal Final Decision re European Counterpart to '682 Patent	X	X
EX1089	Axup, *et al.*, "Synthesis of site-specific antibody-drug conjugates using unnatural amino acids," PNAS, Vol. 109, No. 40, October 2, 2012	X	X
EX1090	International Publication No. WO 2019/191728 ("Bhomik")	X	X
EX1091	Deposition Transcript of Lawrence Nathan Tumey, Ph.D., May 9, 2025	X	X

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing PETITIONER'S UPDATED EXHIBIT LIST and copies of EXHIBITS 1089-1091 are being served on counsel for Patent Owner by electronic mail this 16th day of May 2025 as follows:

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