

FIGURE 1

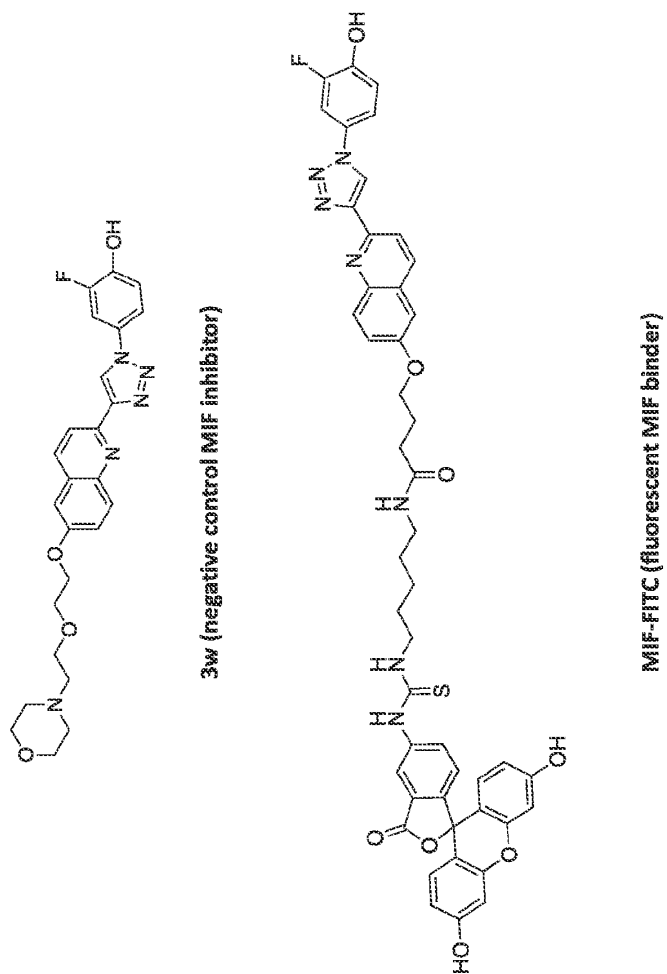
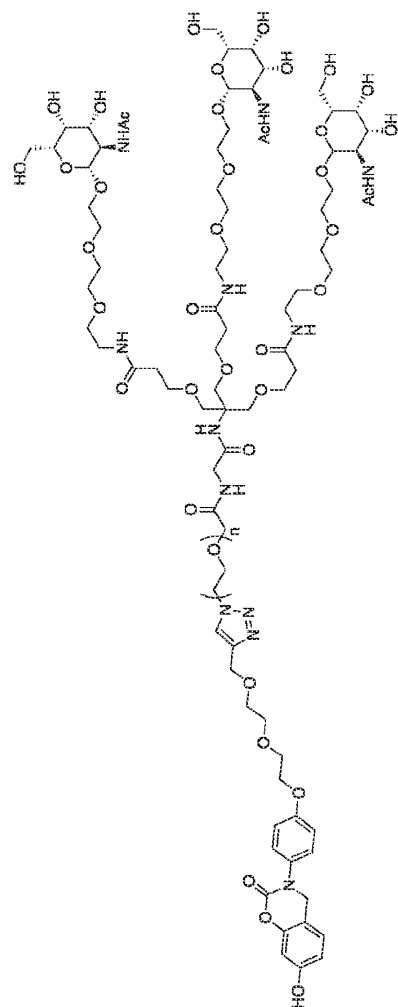
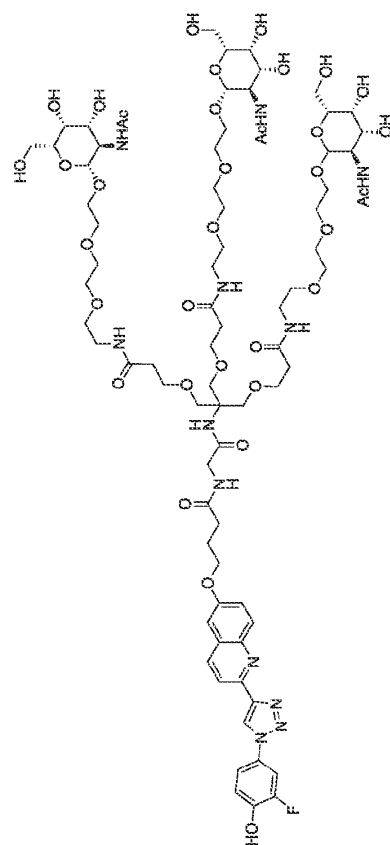


FIGURE 1 (Cont'd)

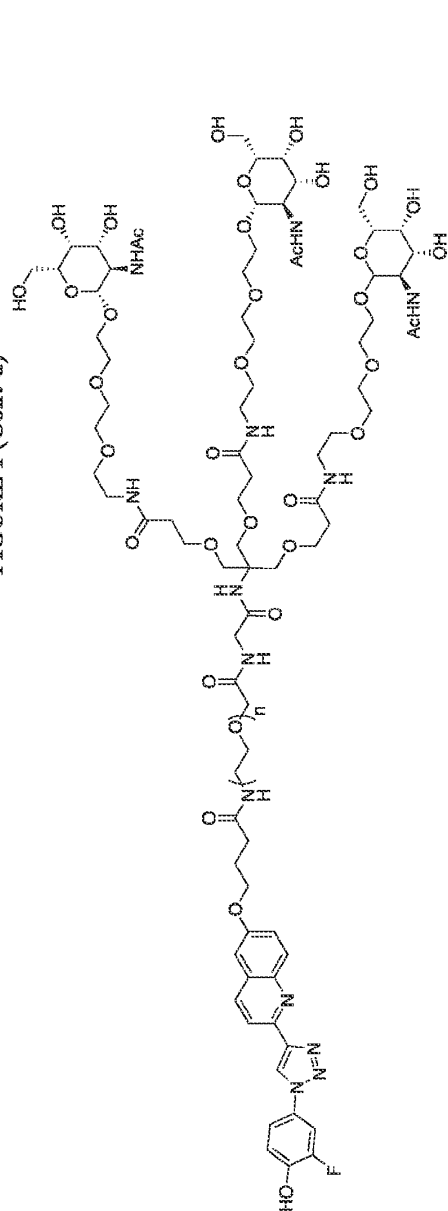


MIF-NVS-PEGn-GN3

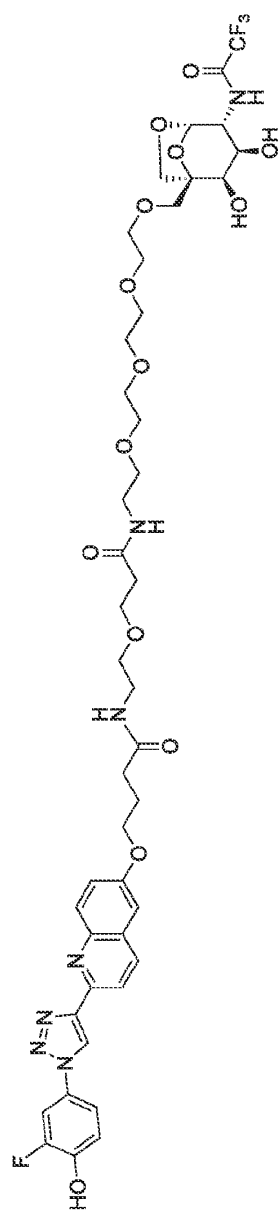


MIF-GN3

FIGURE 1 (Cont'd)



MIF-PEGn-GN3



MIF-AcF3-1

FIGURE 1 (Cont'd)

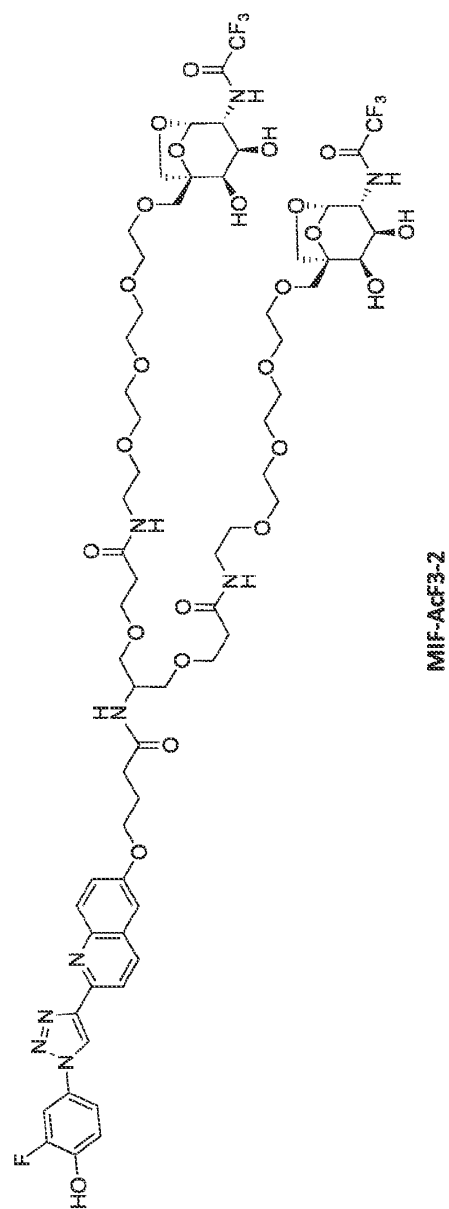
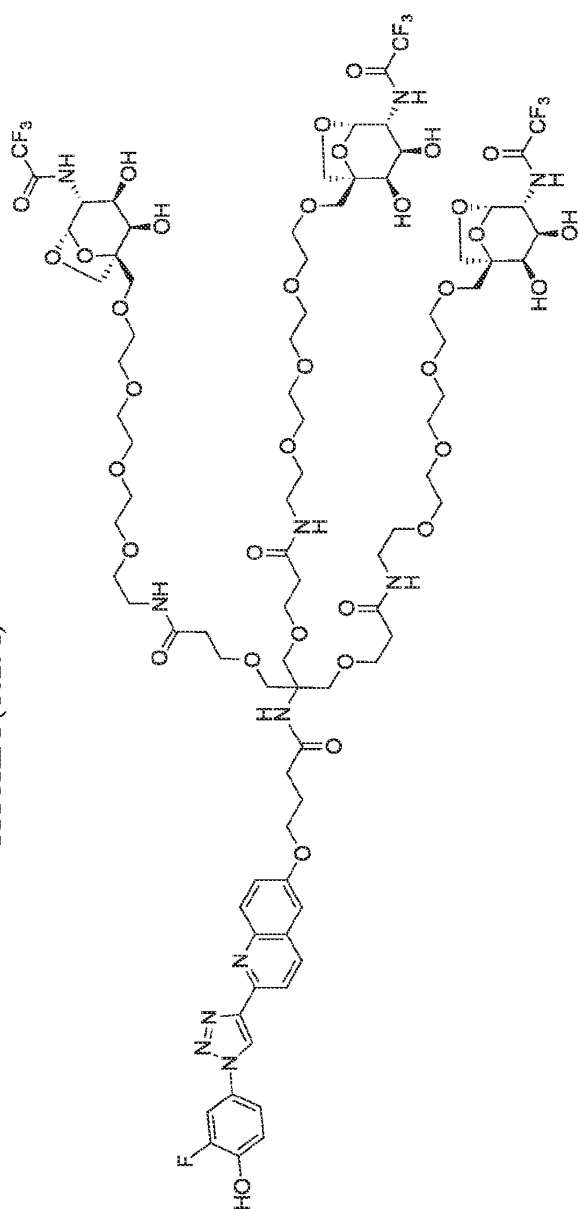


FIGURE 1 (Cont'd)



MIF-AcF3-3

FIGURE 2

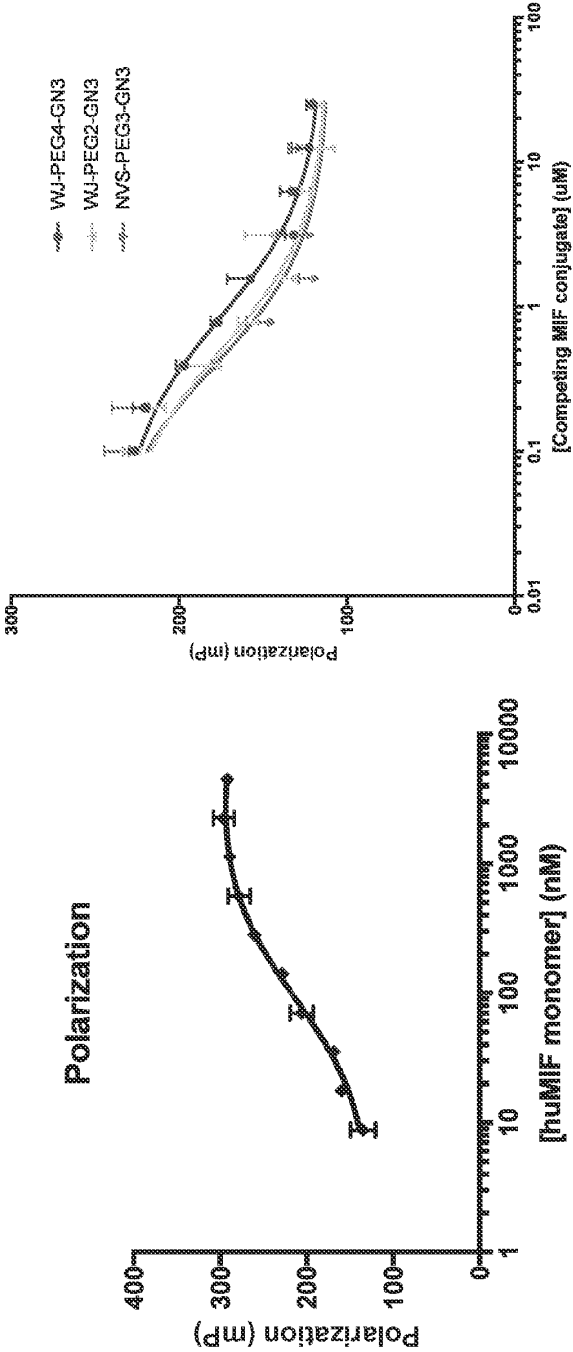


FIGURE 3

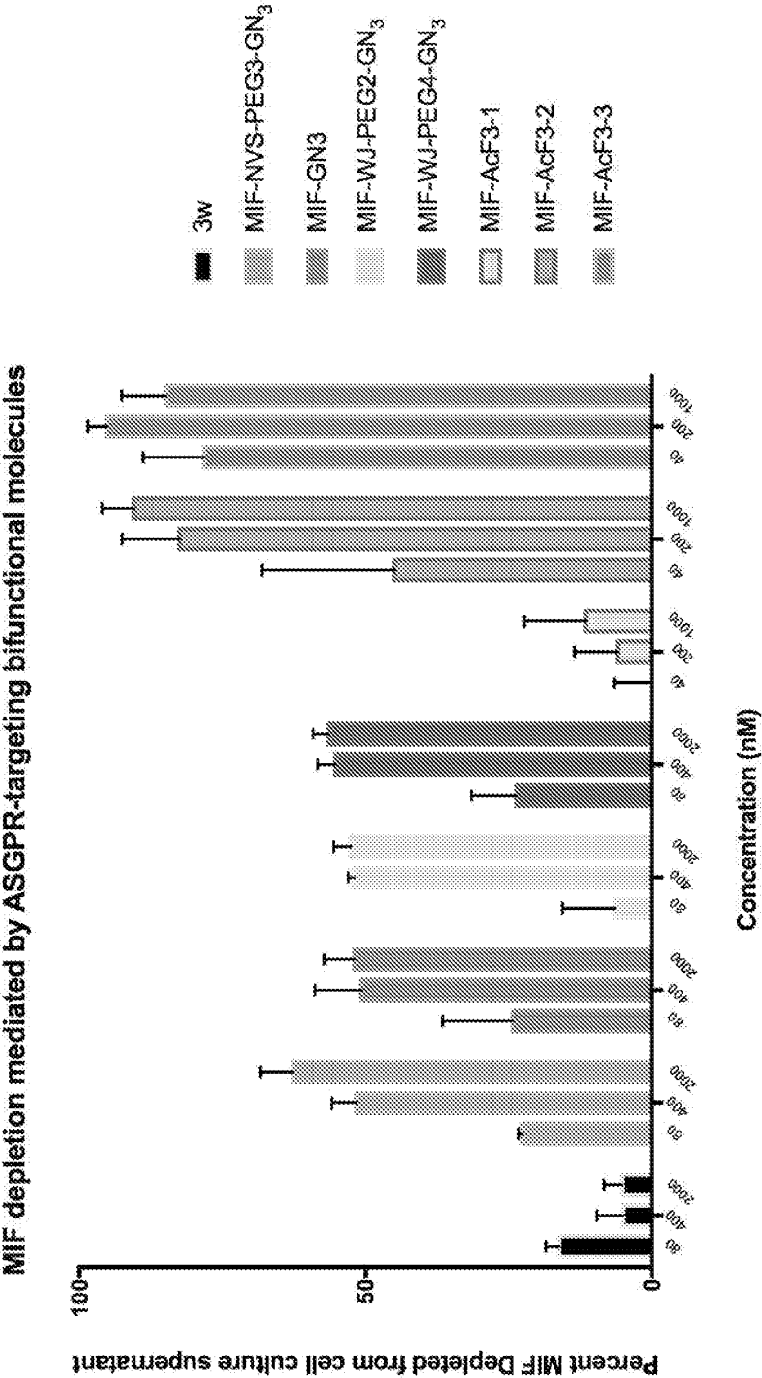


FIGURE 4

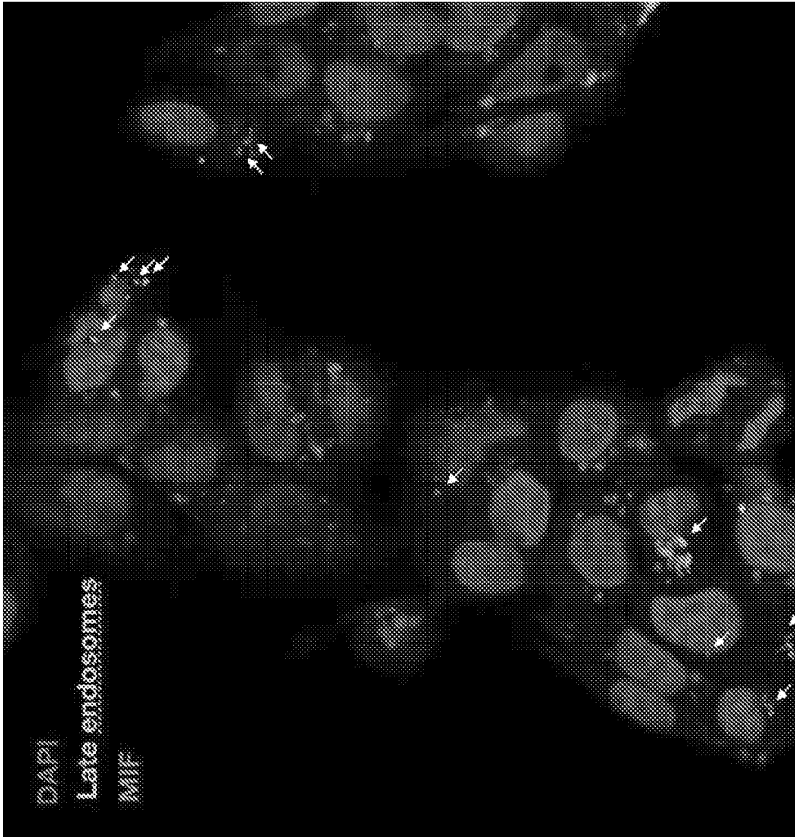


FIGURE 5

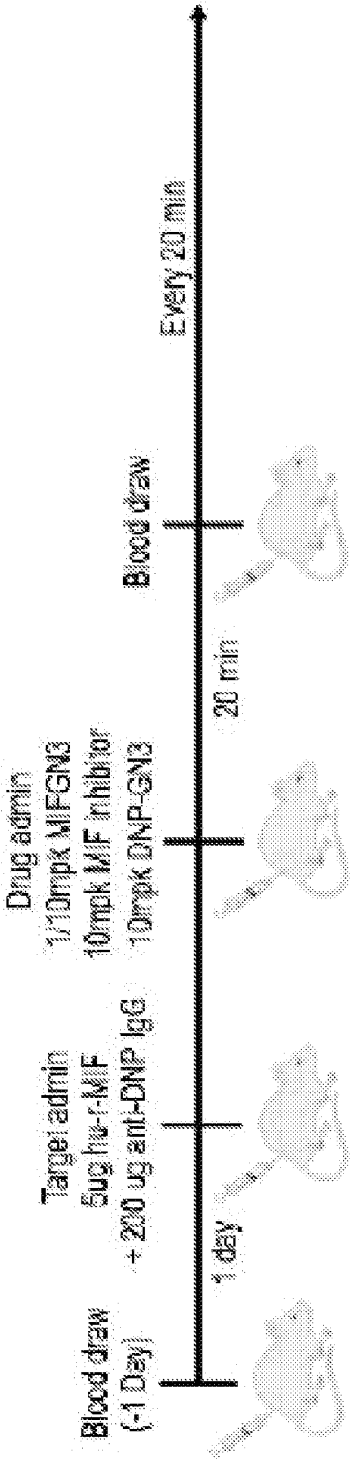


FIGURE 5 (Cont'd)

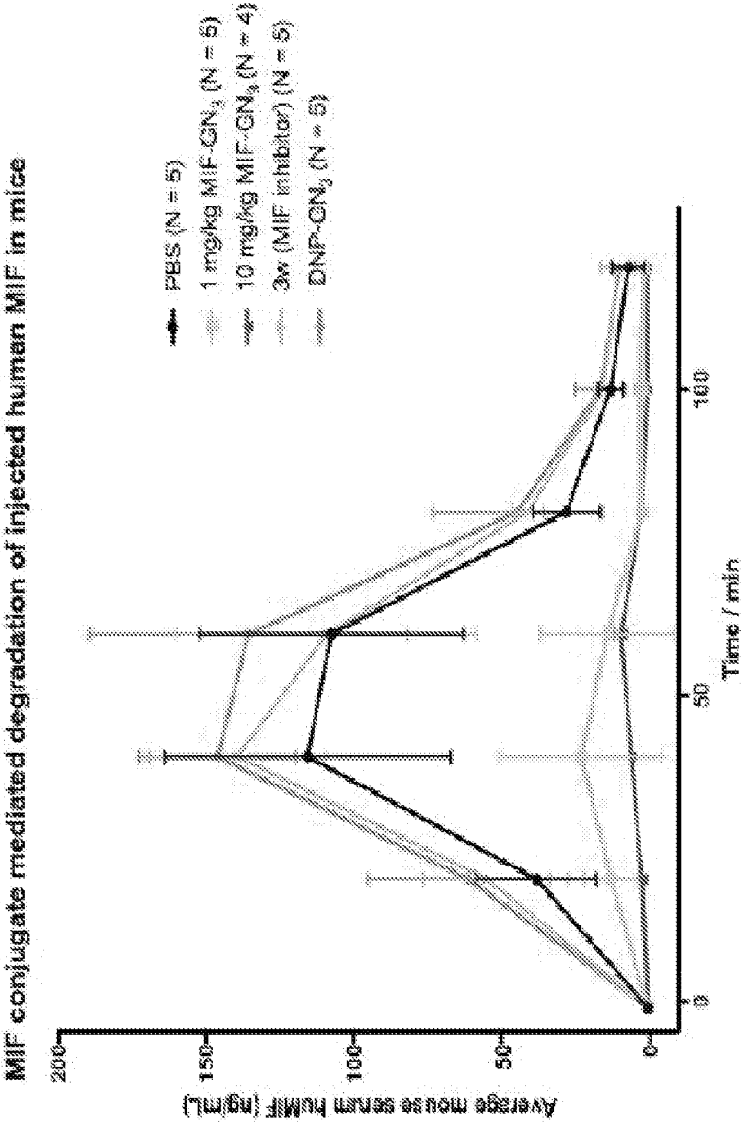


FIGURE 5 (Cont'd)

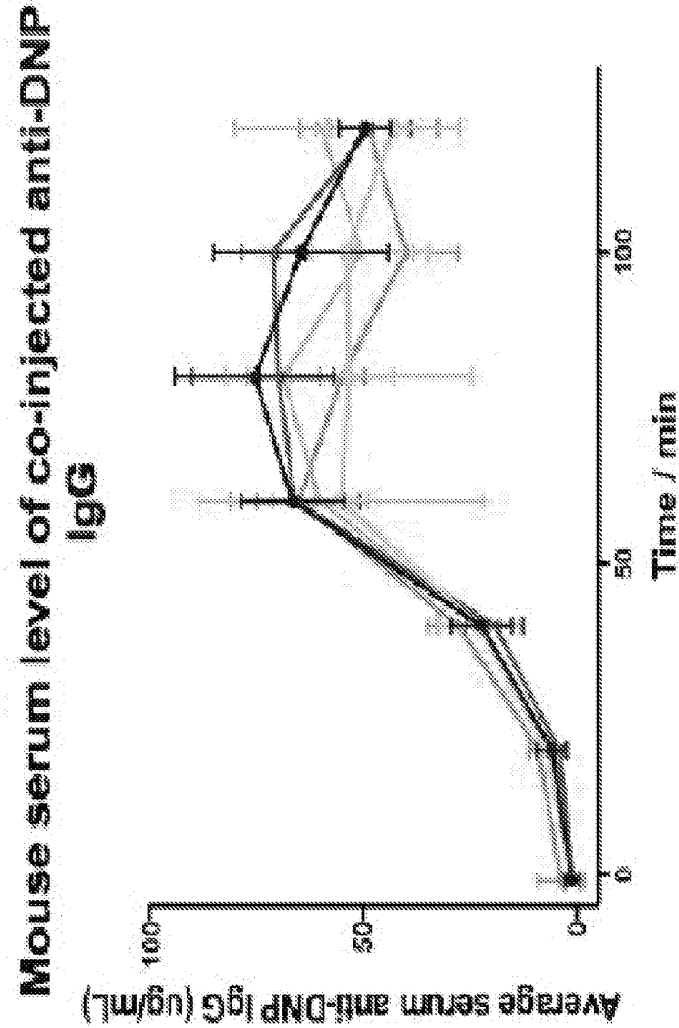


FIGURE 6

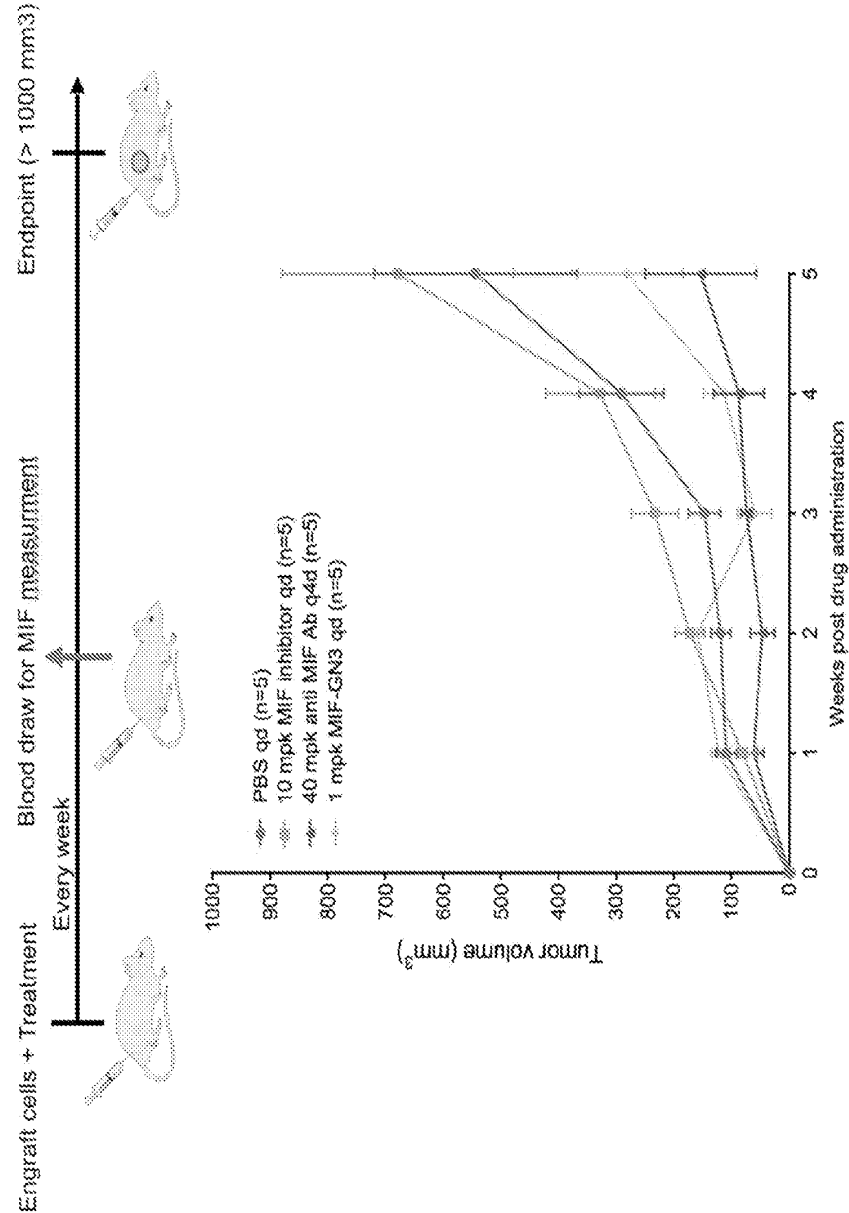


FIGURE 7

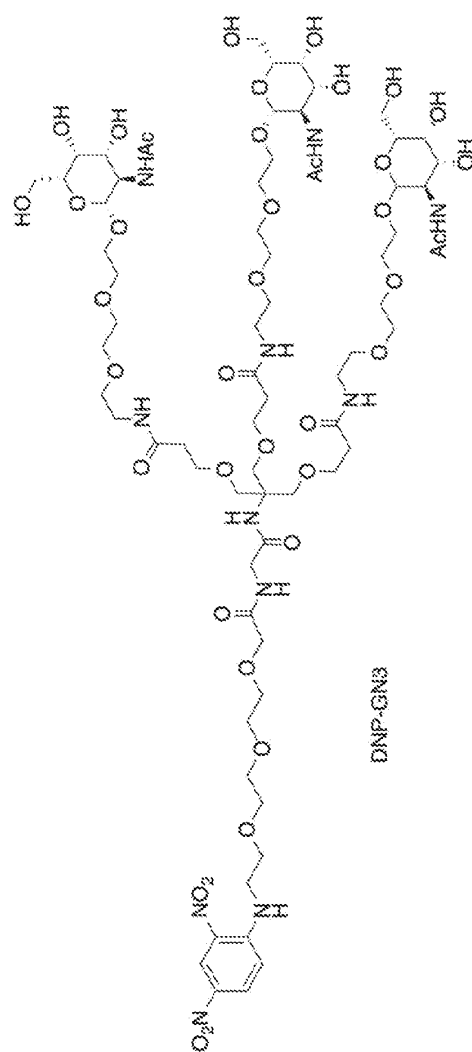


FIGURE 7 (Cont'd)

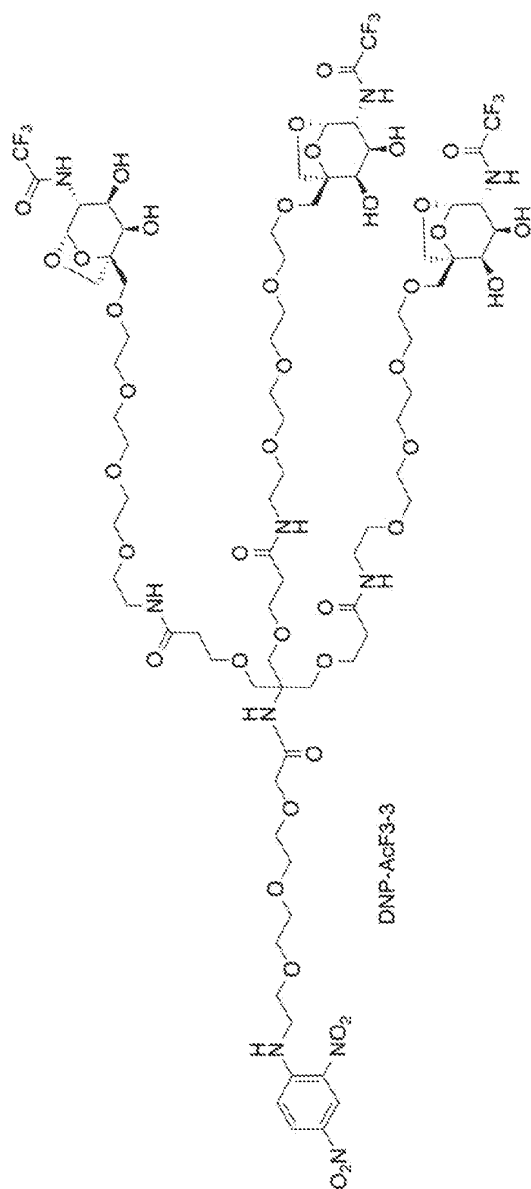


FIGURE 8

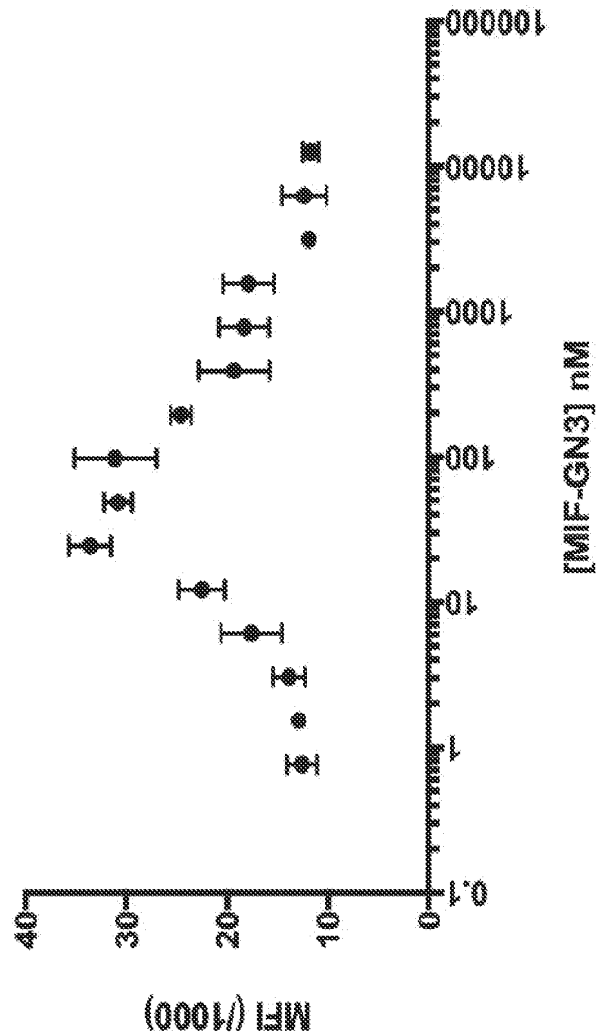


FIGURE 8 (Cont'd)

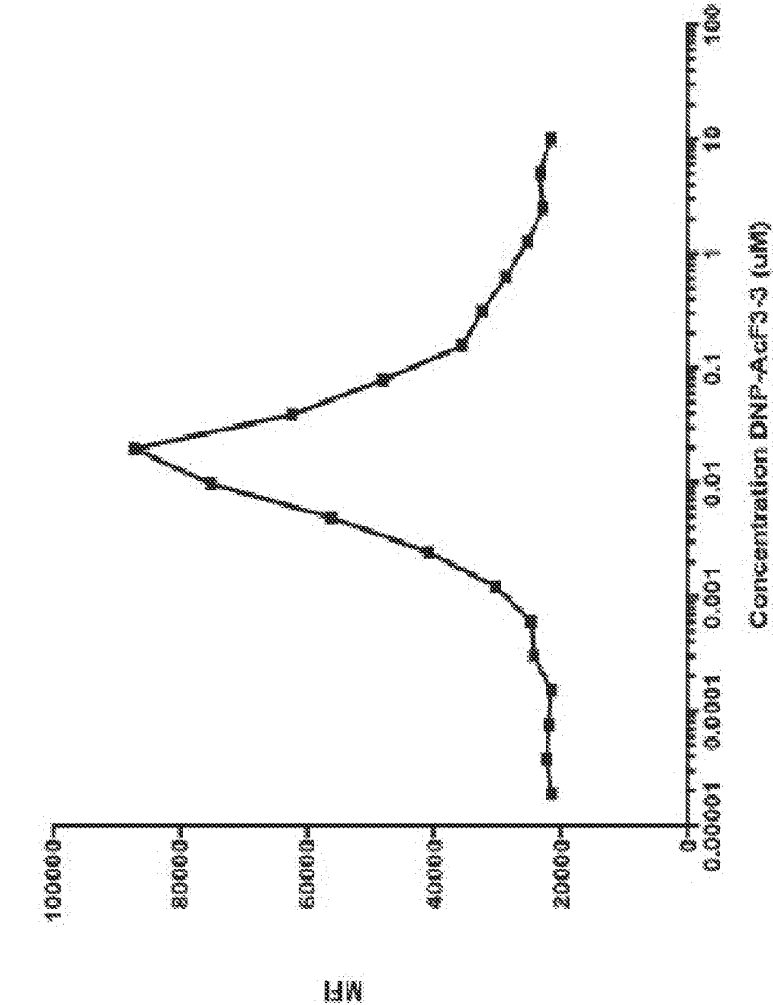


FIGURE 9

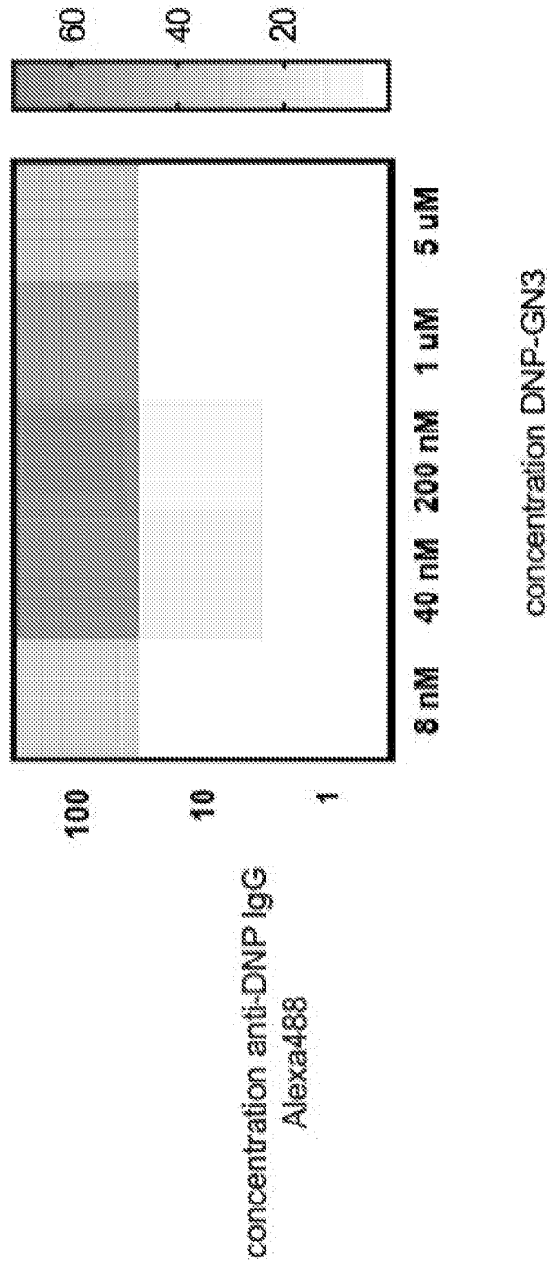
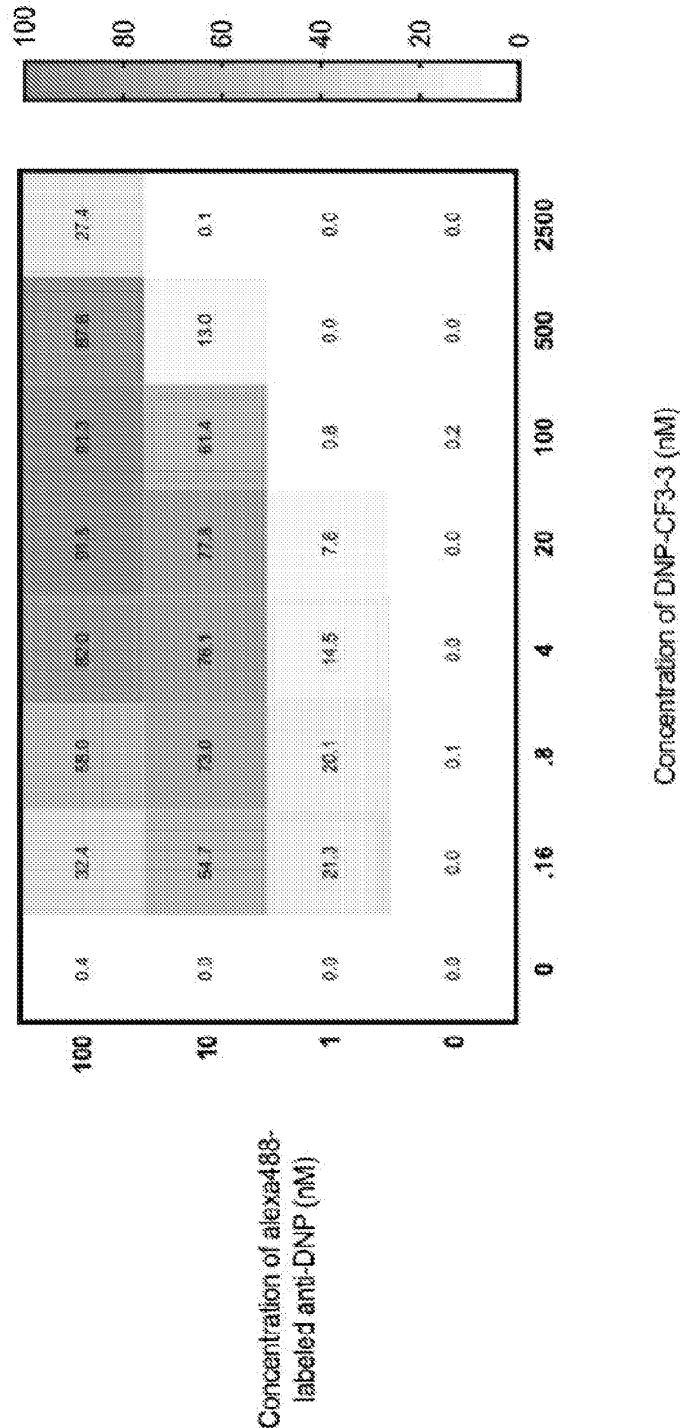


FIGURE 9 (Cont'd)



Concentration of alexa488-labeled anti-DNP (nM)

Concentration of DNP-CF3-3 (nM)

FIGURE 10

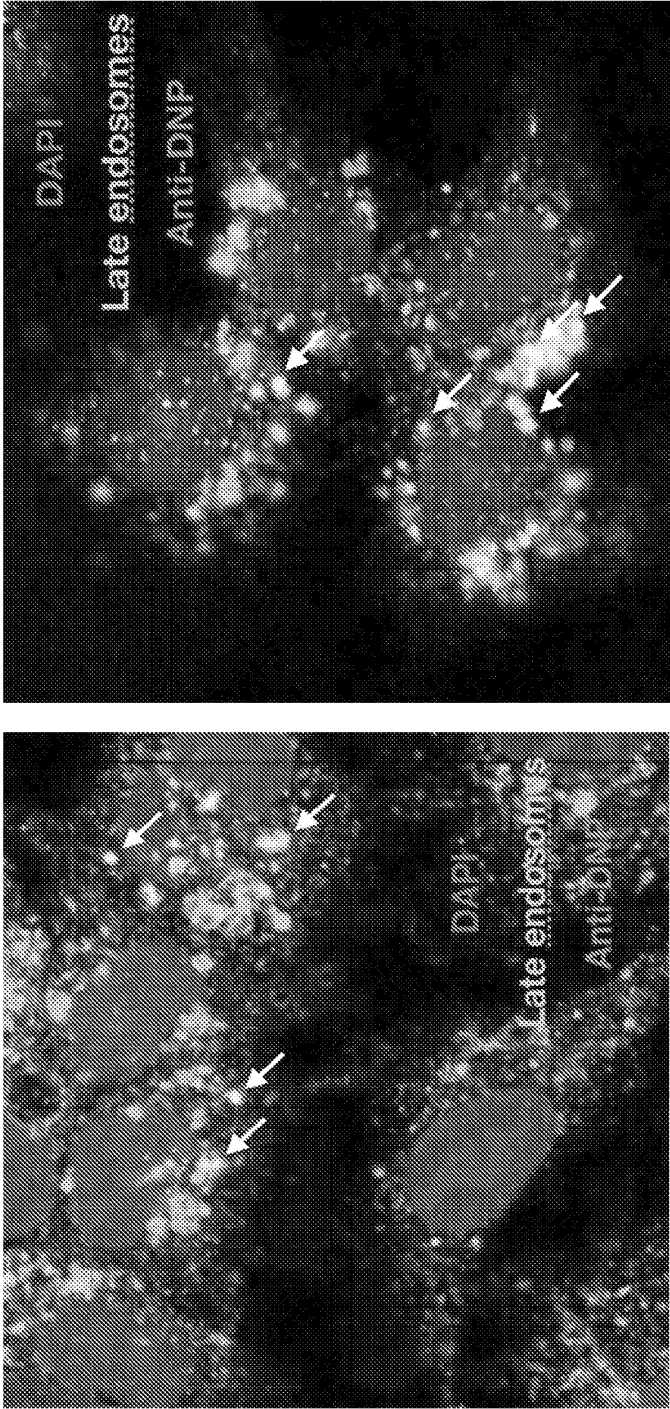


FIGURE 11

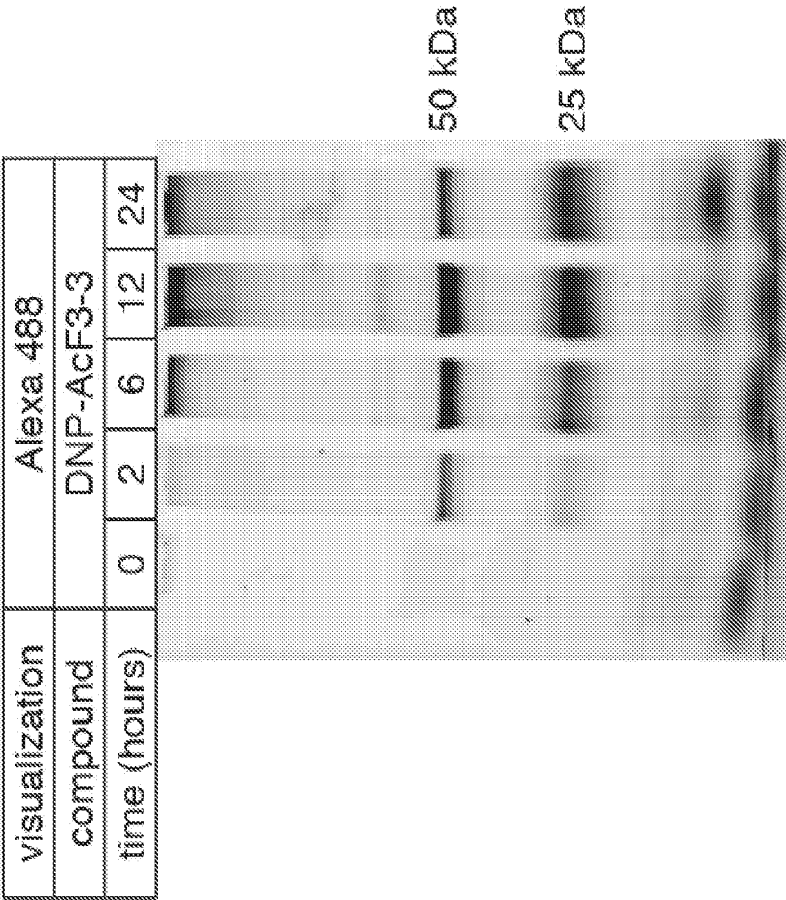


FIGURE 12

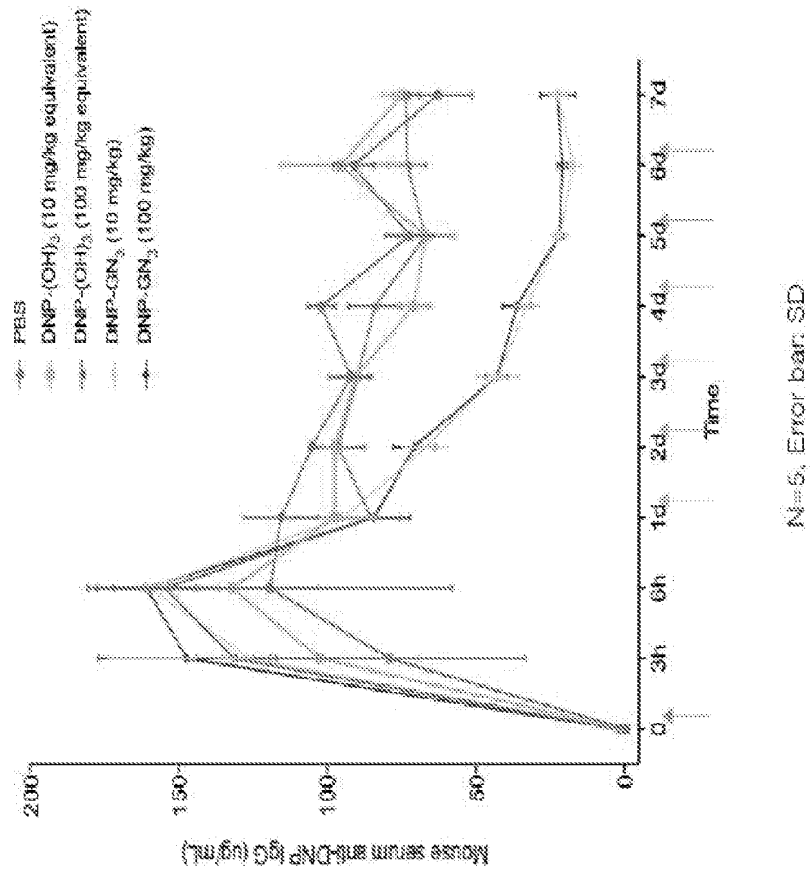


FIGURE 13

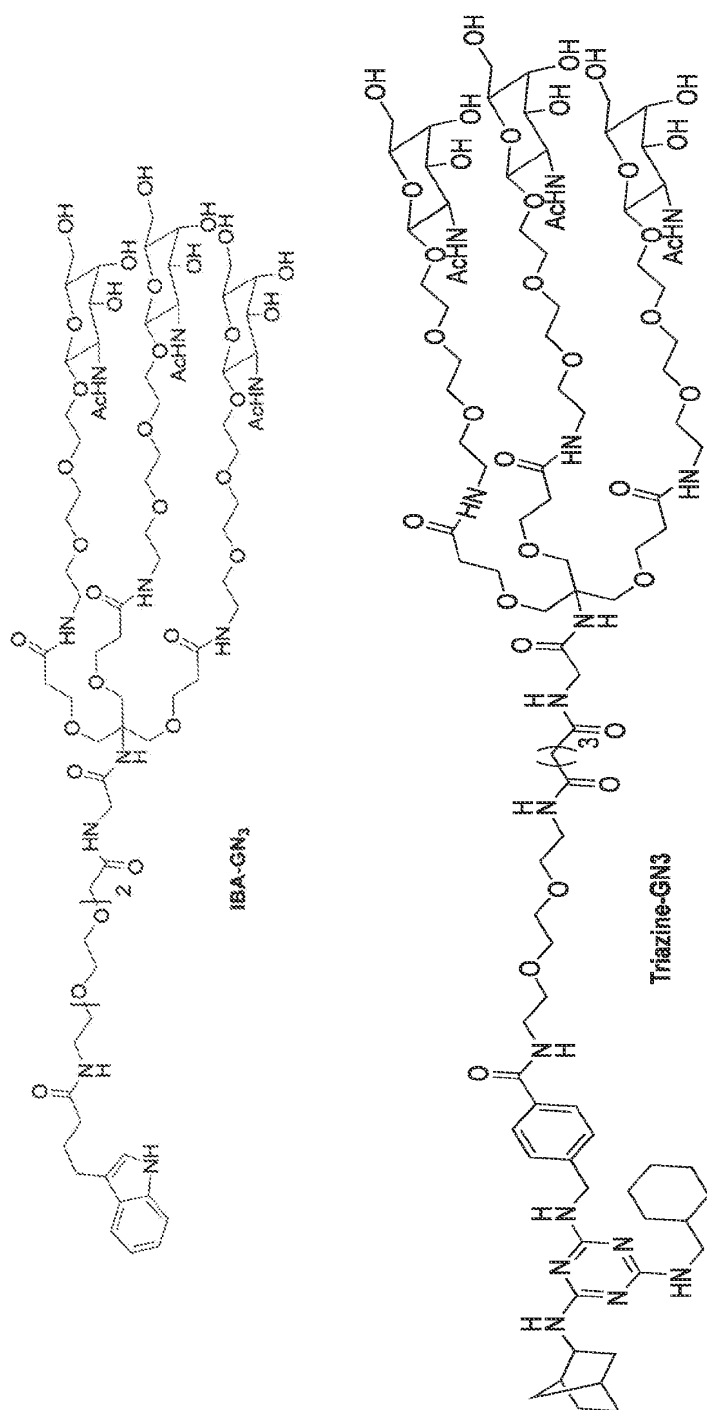


FIGURE 13 (Cont'd)

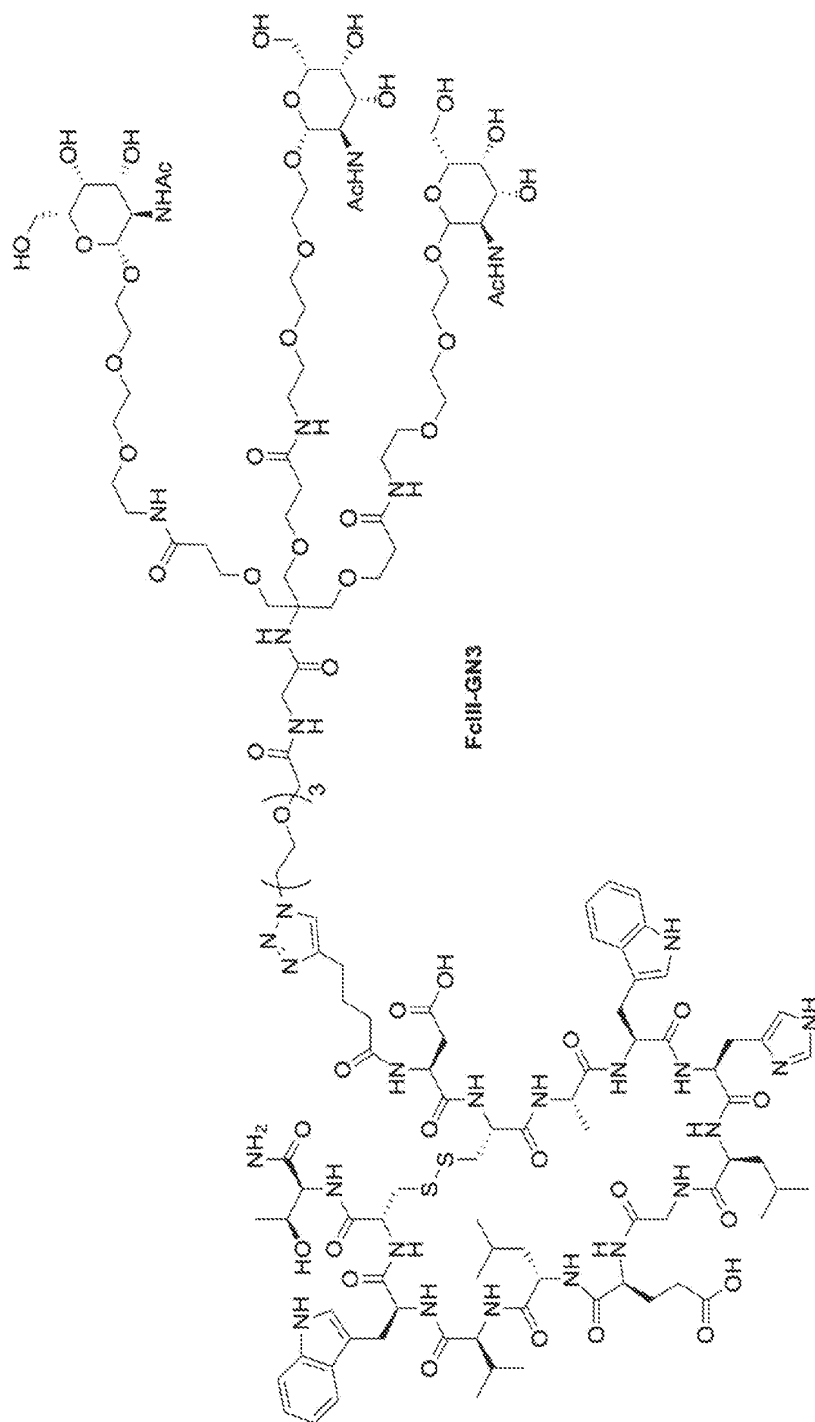


FIGURE 13 (Cont'd)

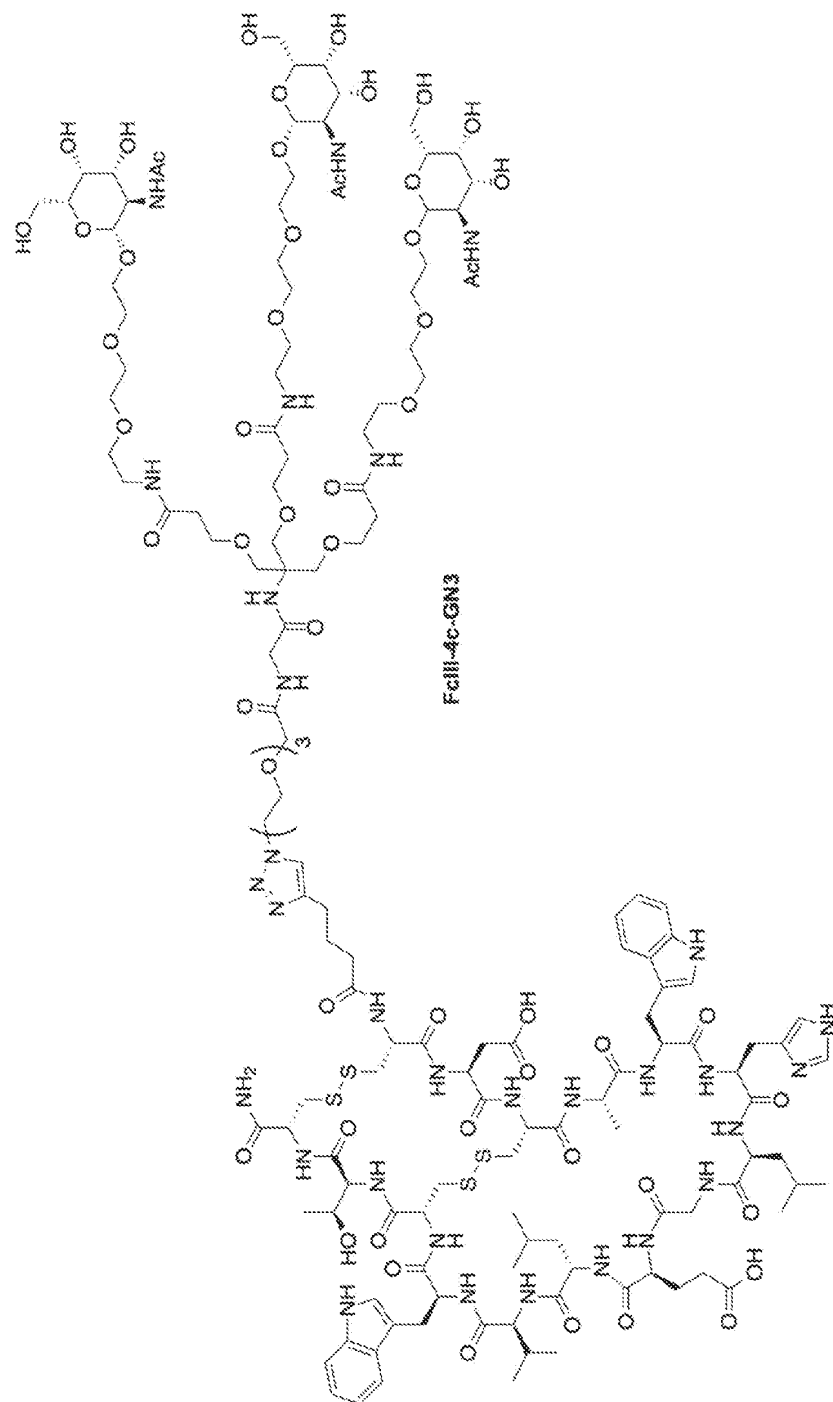


FIGURE 14

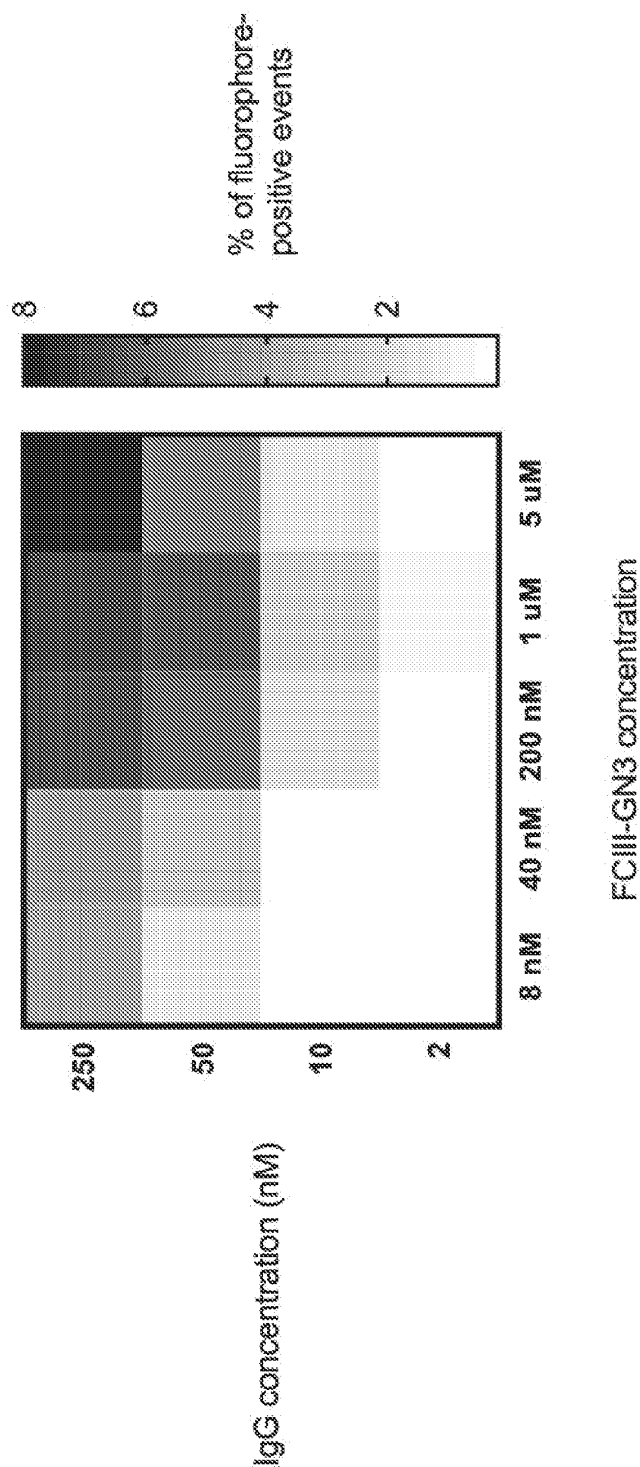


FIGURE 15

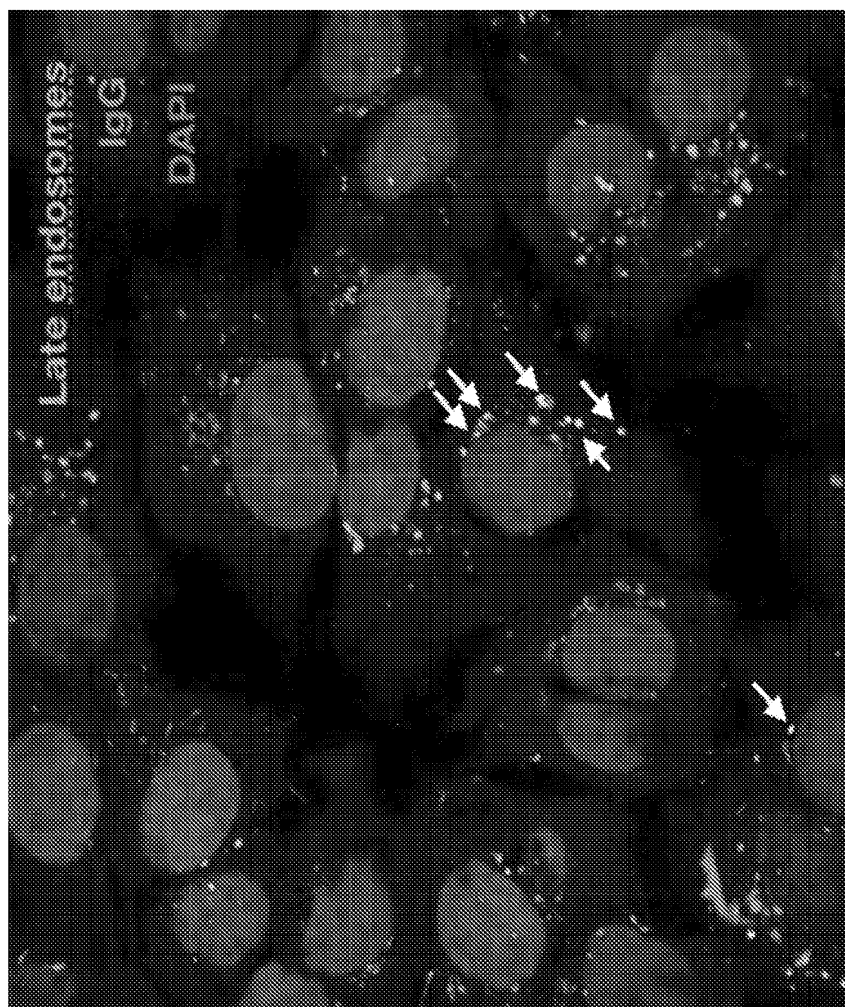


FIGURE 16

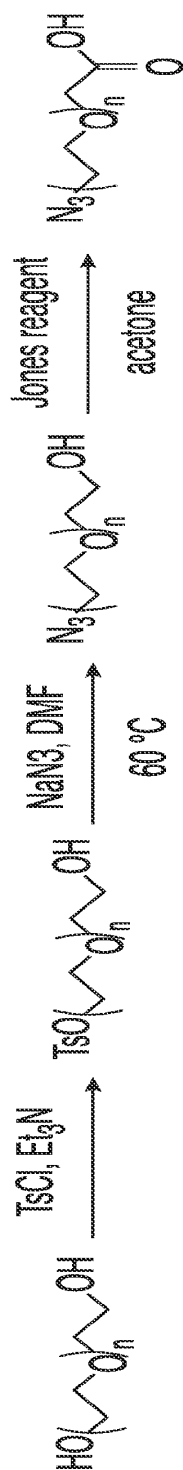


FIGURE 17

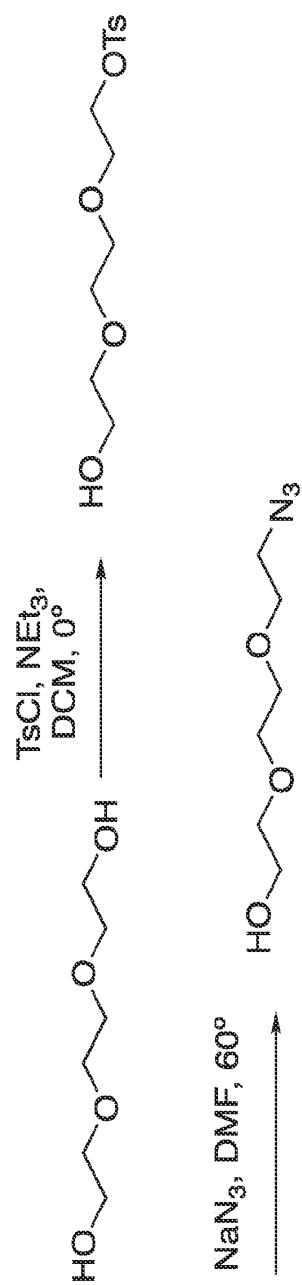


FIGURE 18

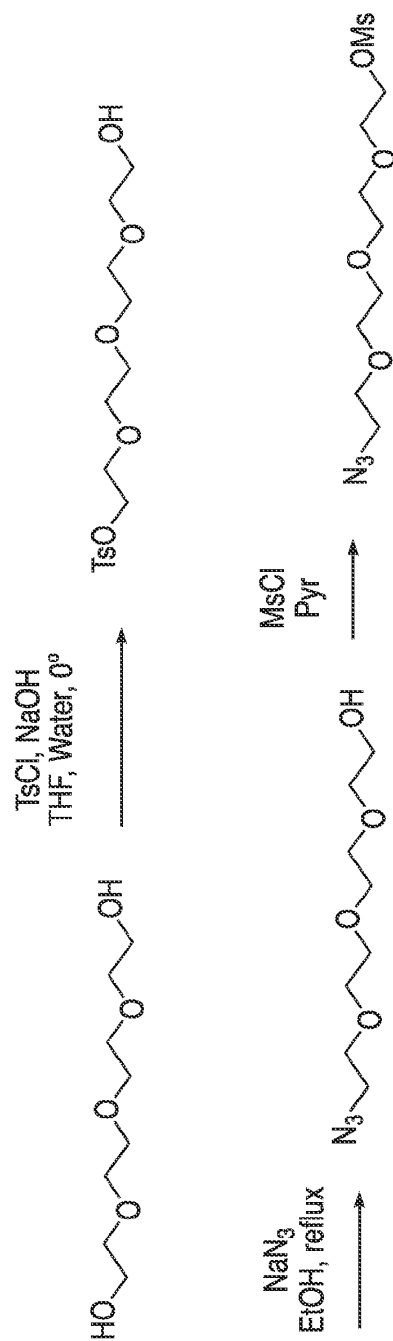


FIGURE 19

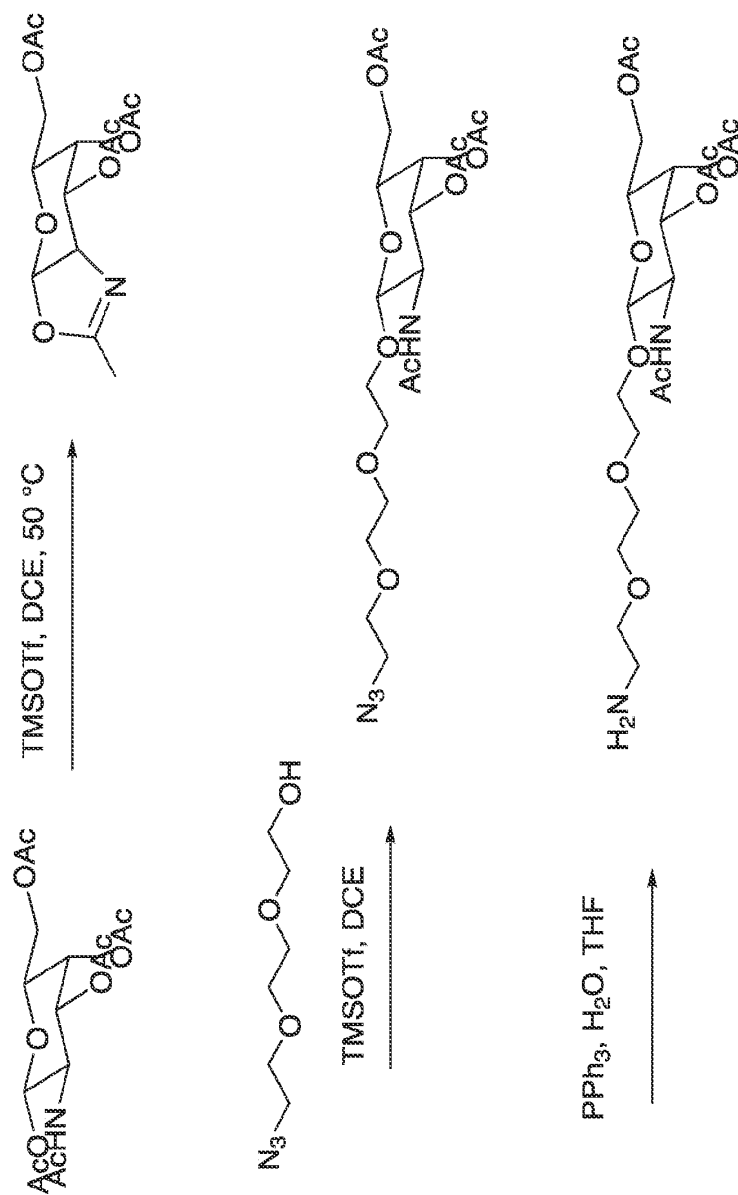


FIGURE 20

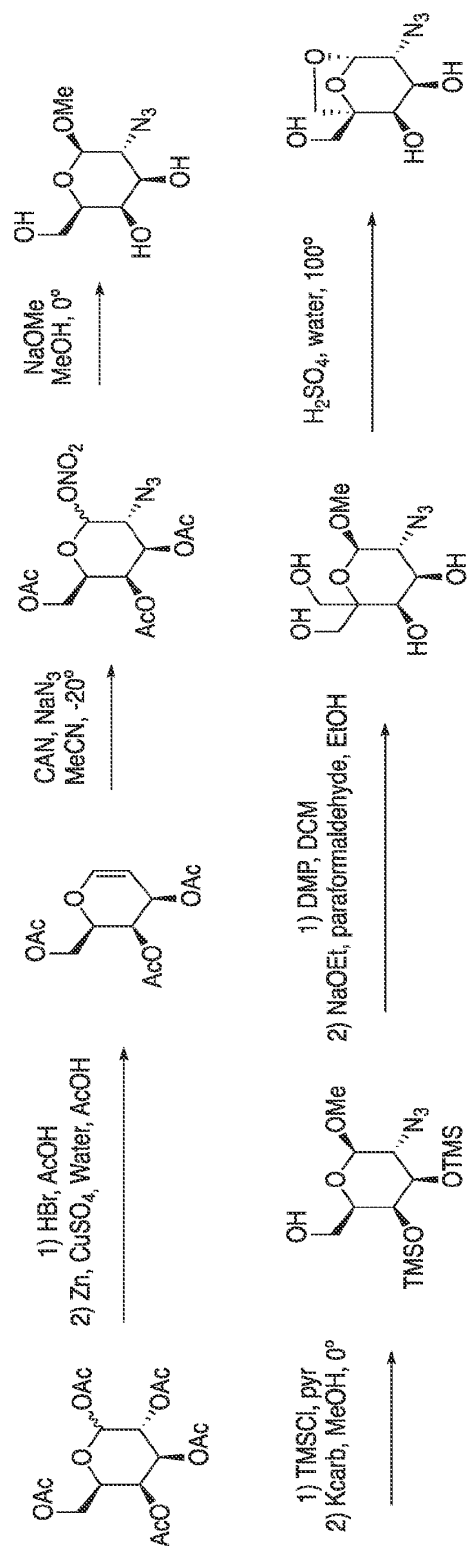


FIGURE 21

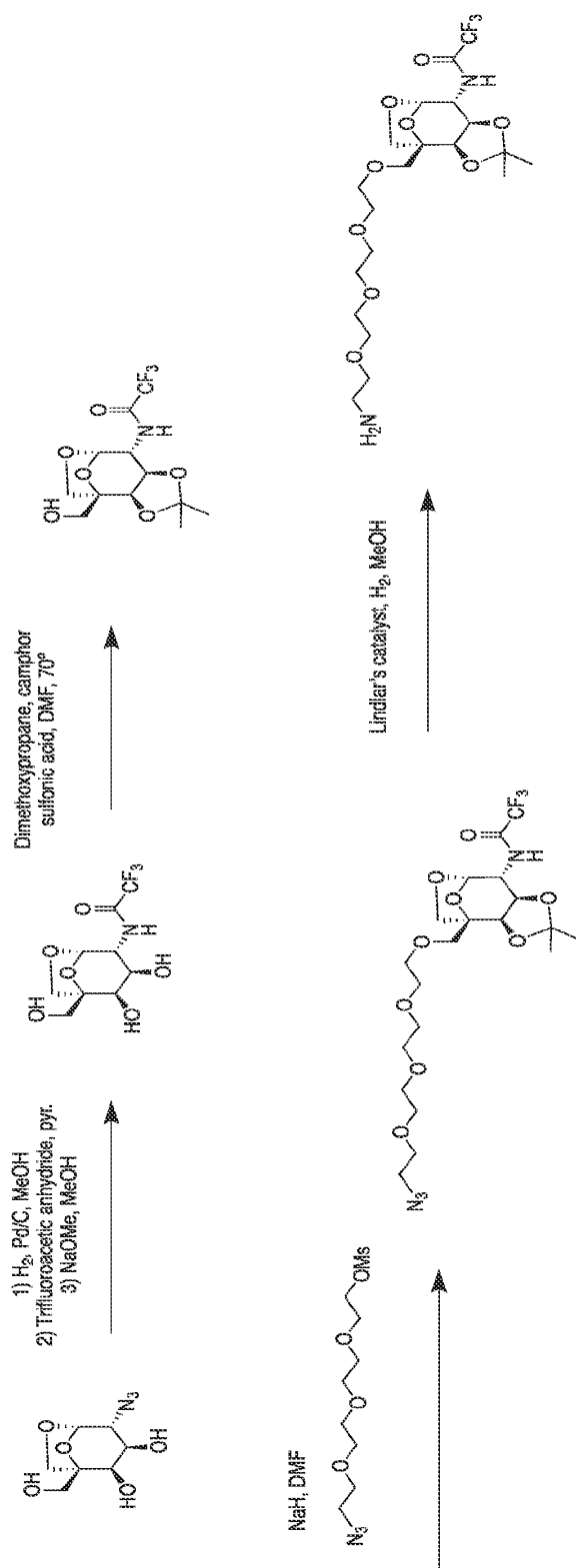


FIGURE 22

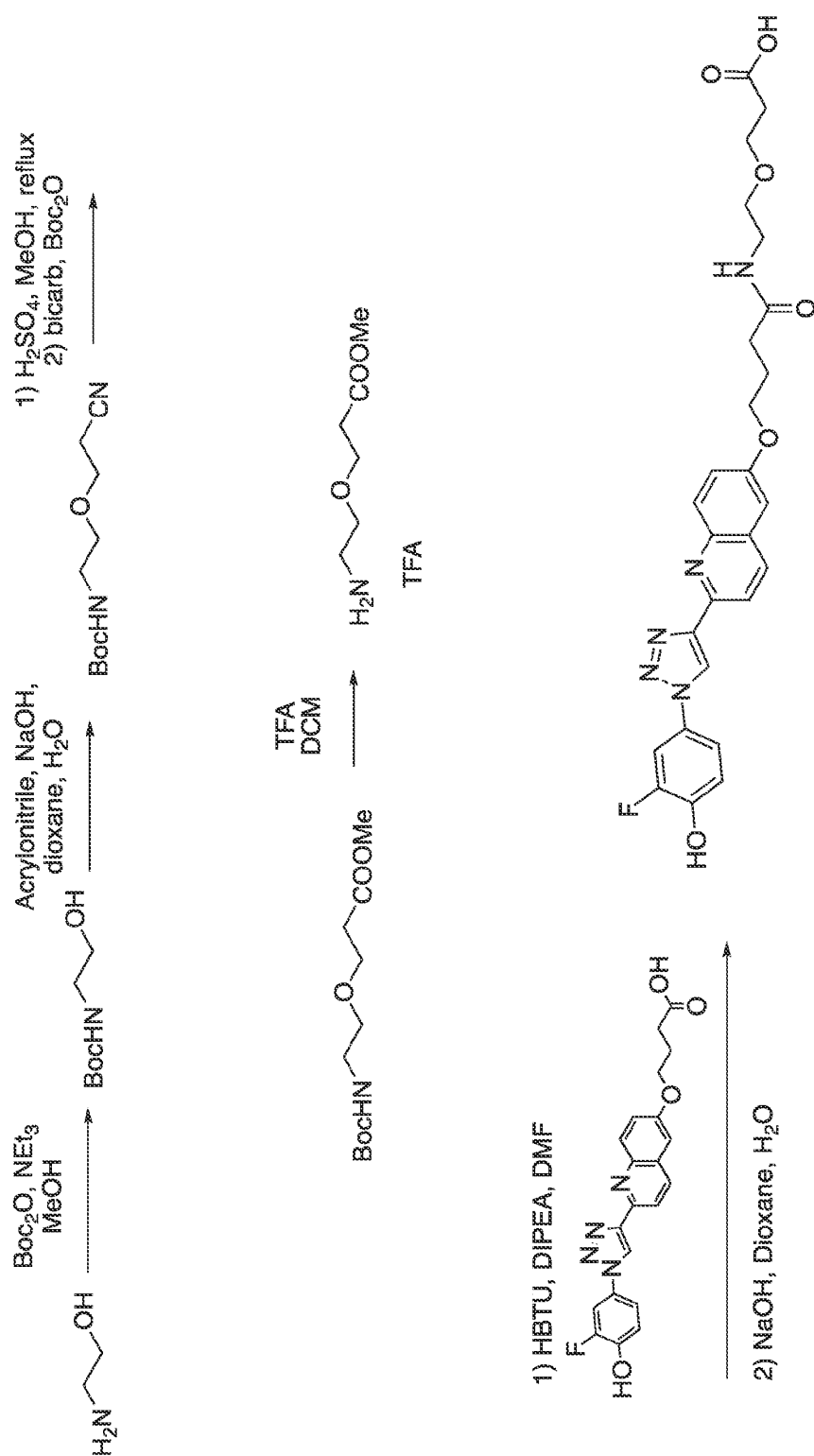


FIGURE 23

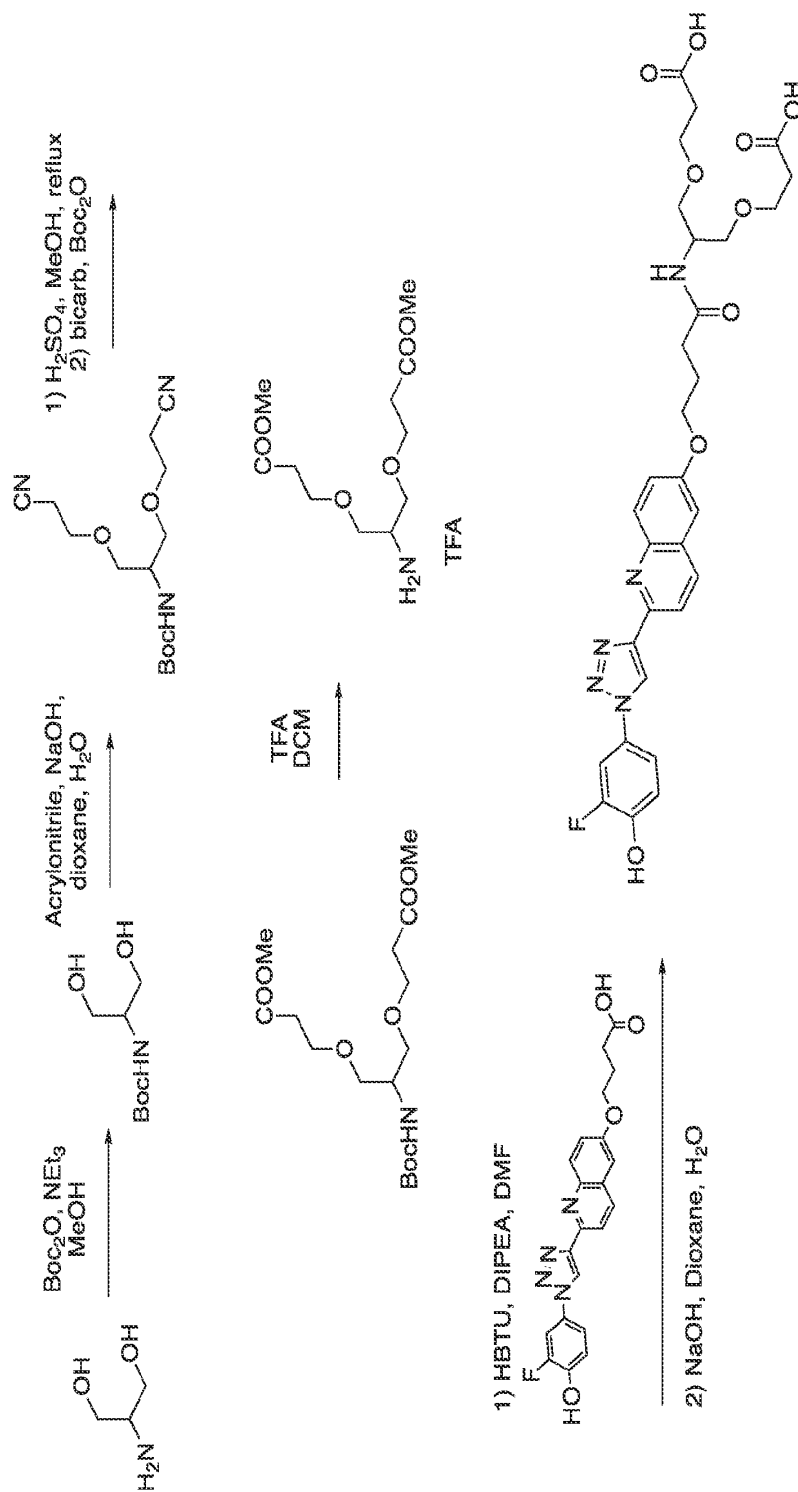


FIGURE 24

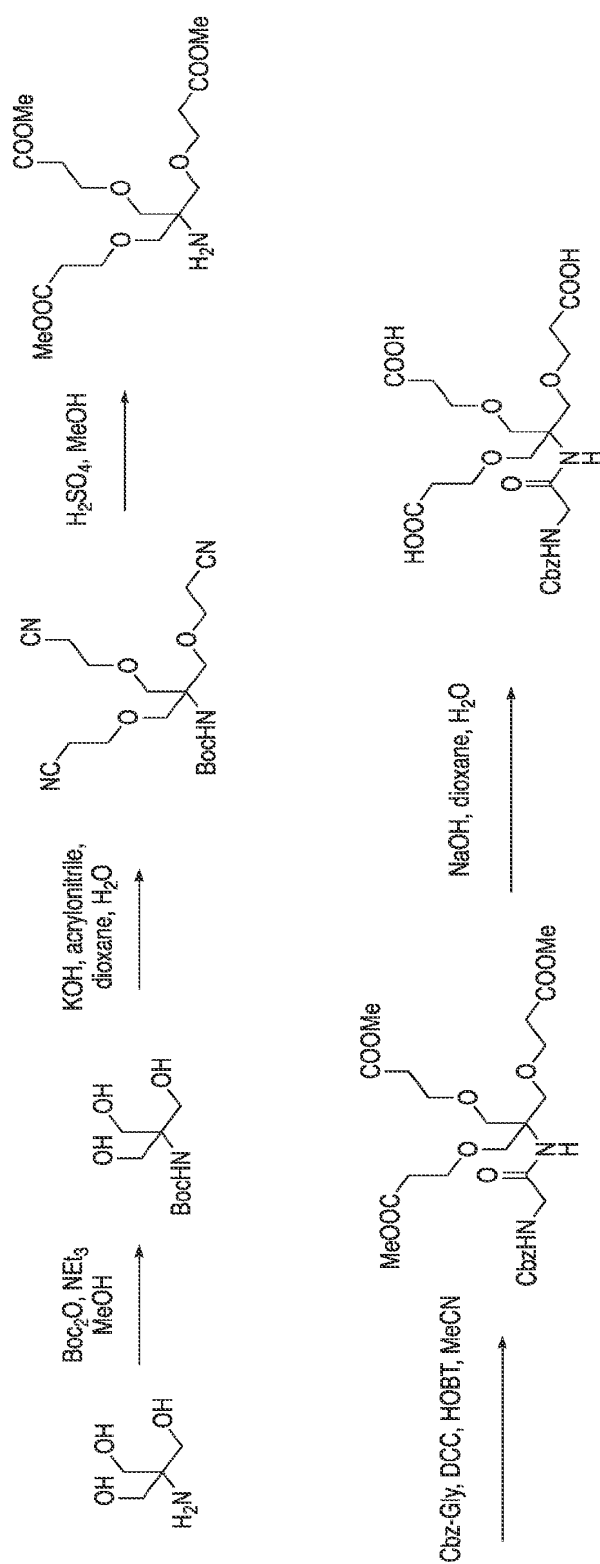


FIGURE 25

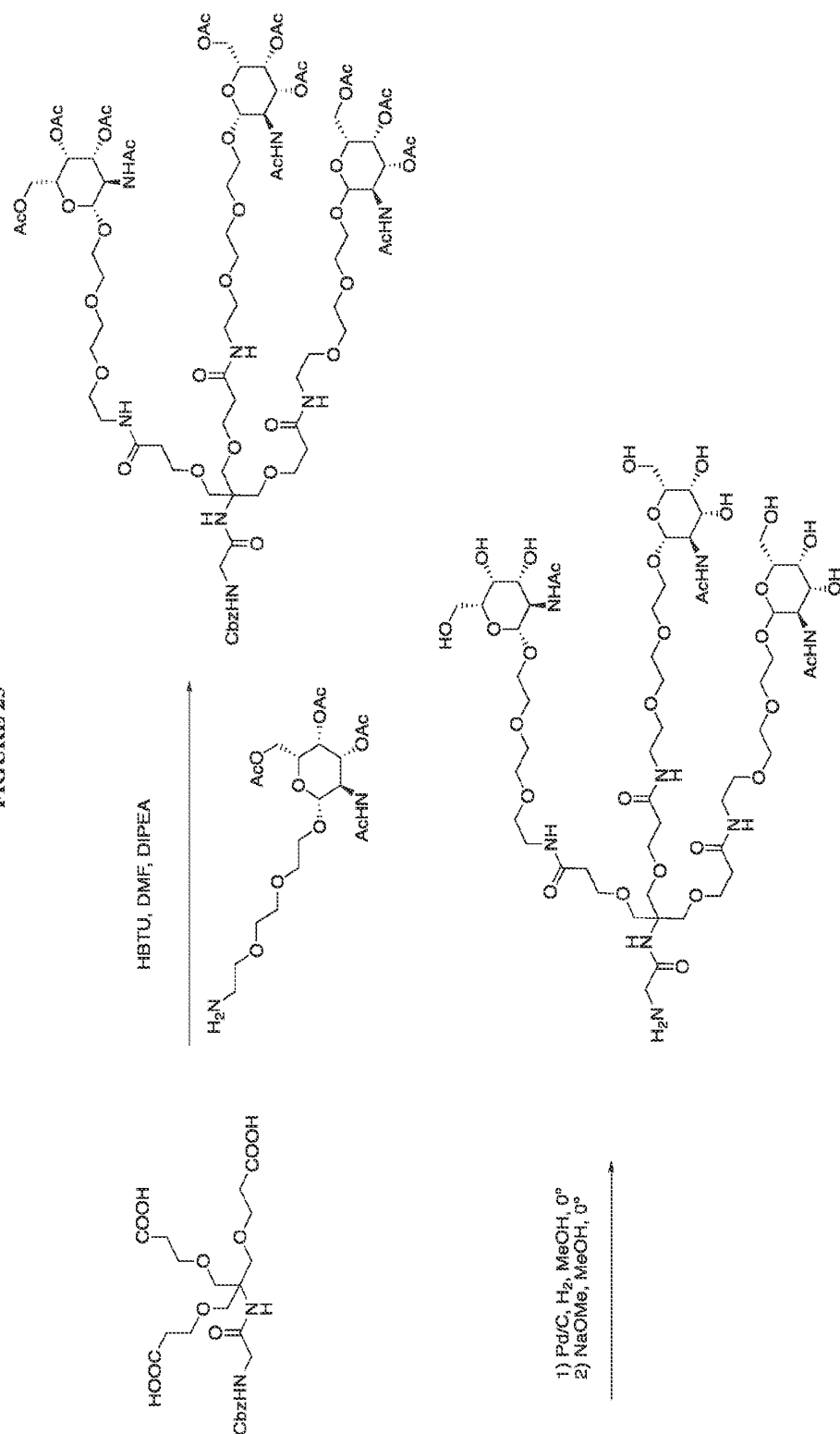


FIGURE 26

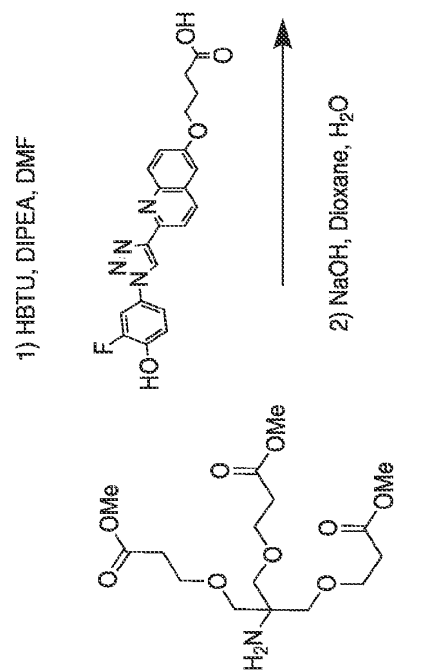


FIGURE 27

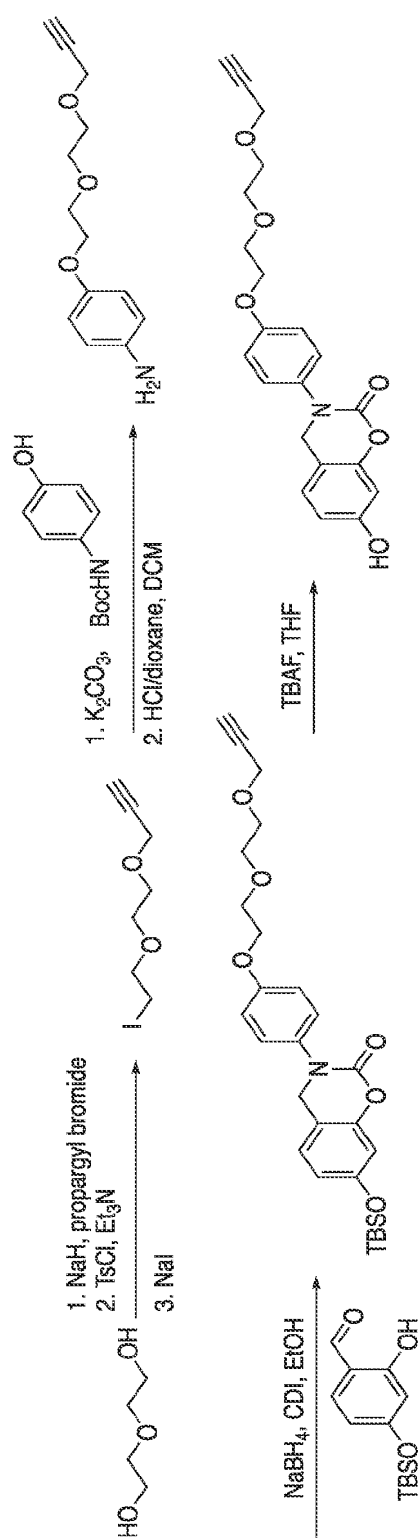


FIGURE 28

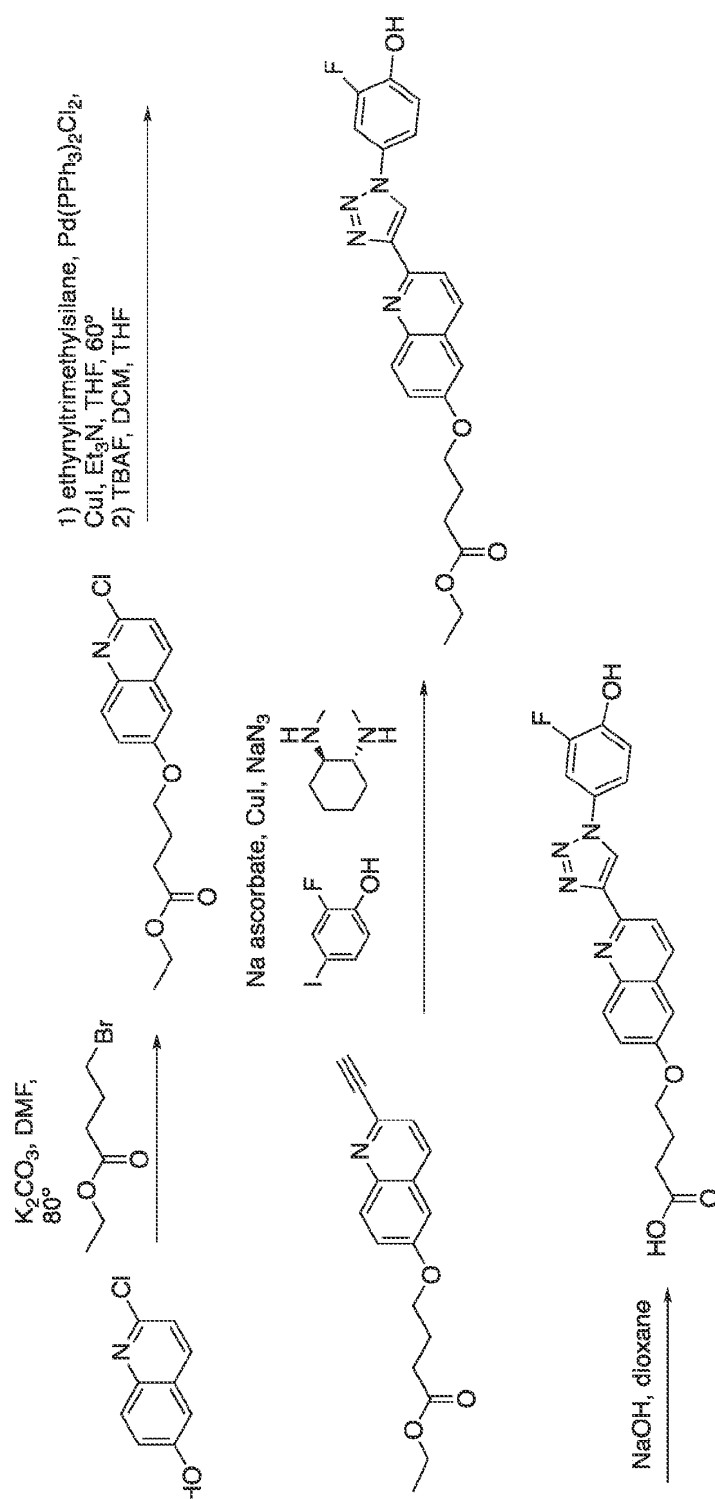


FIGURE 29

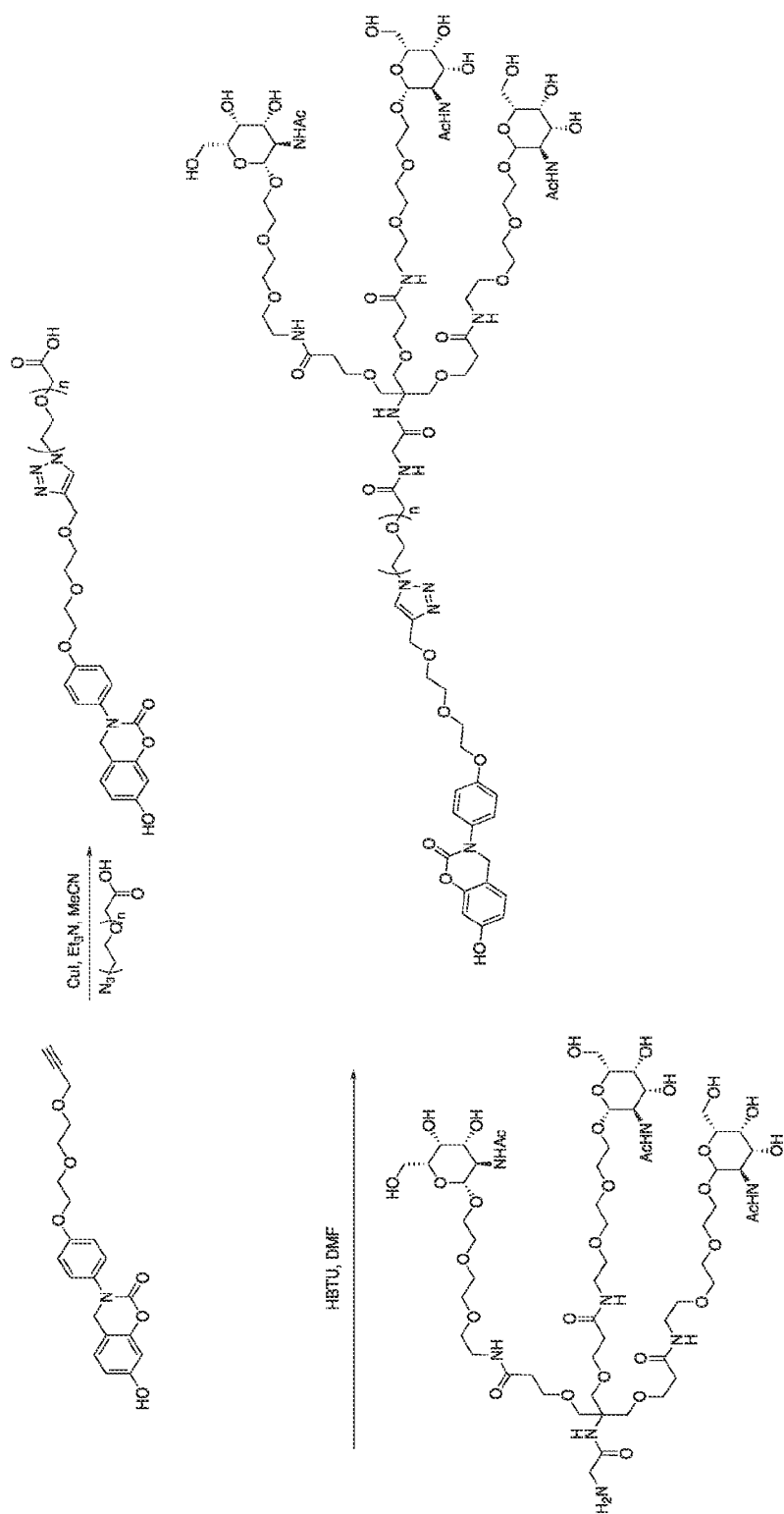


FIGURE 30

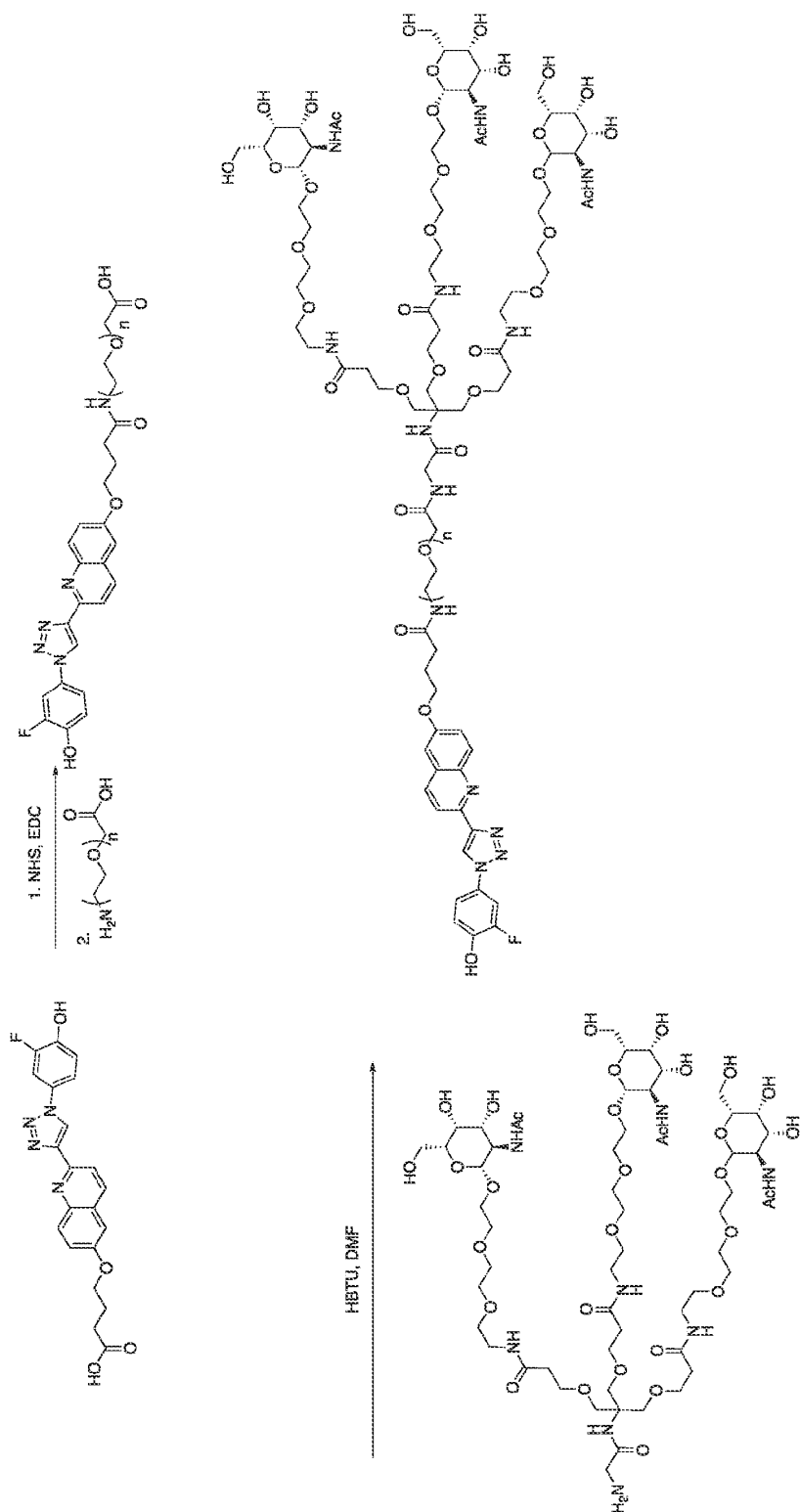


FIGURE 31

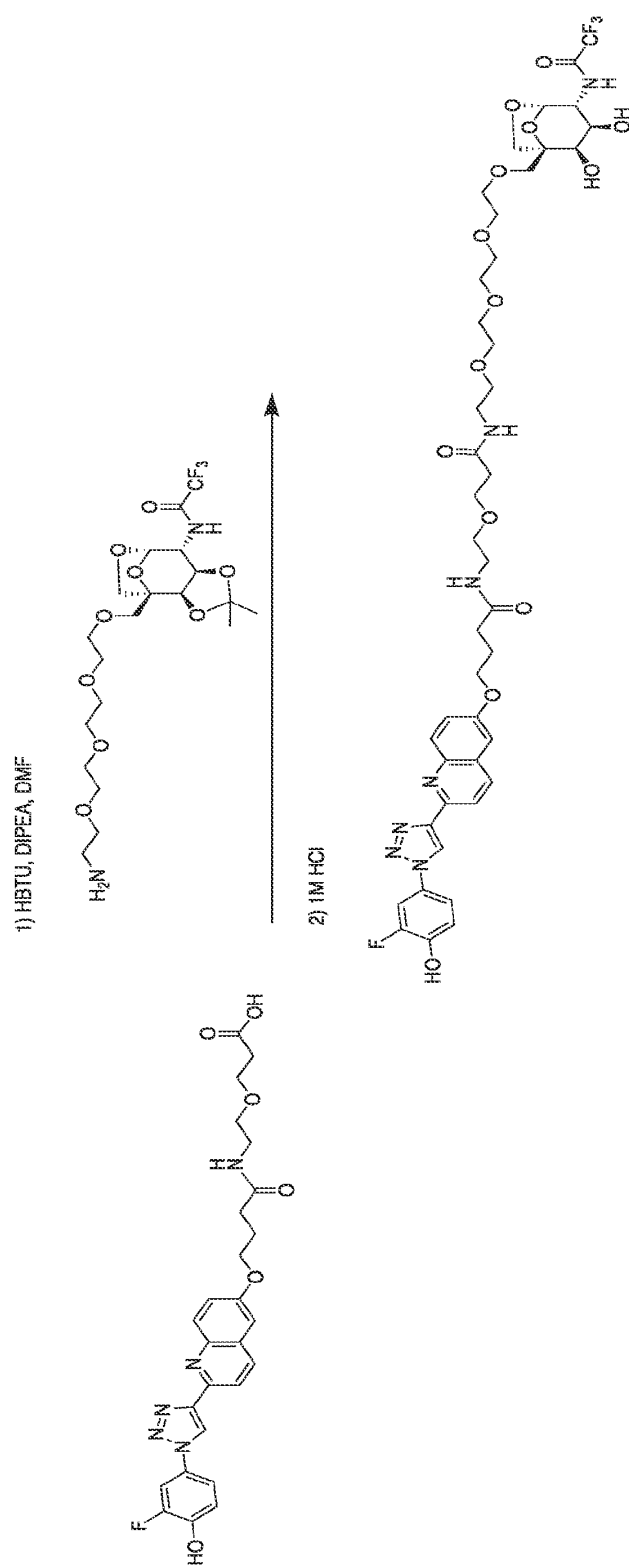


FIGURE 32

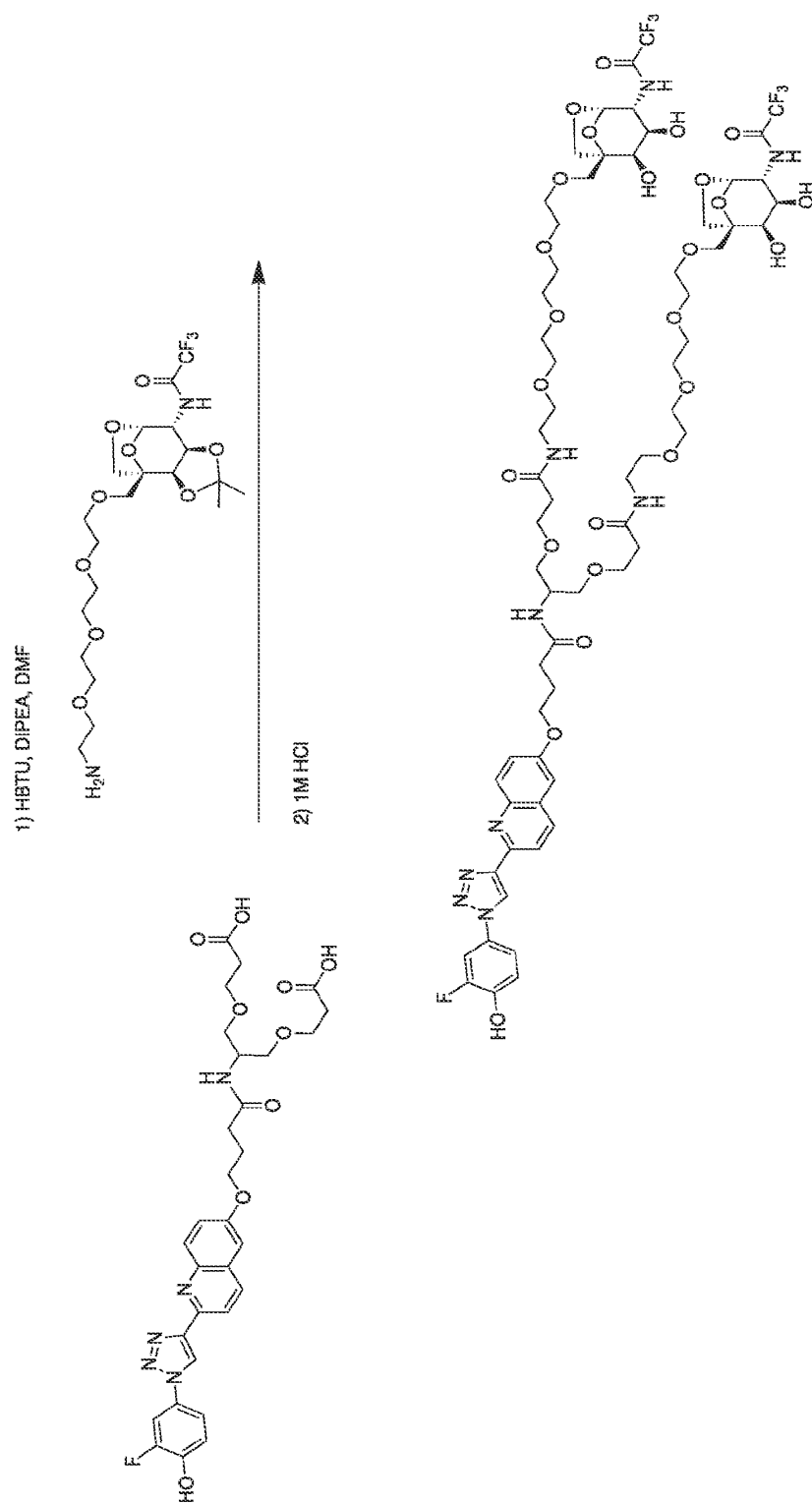


FIGURE 33

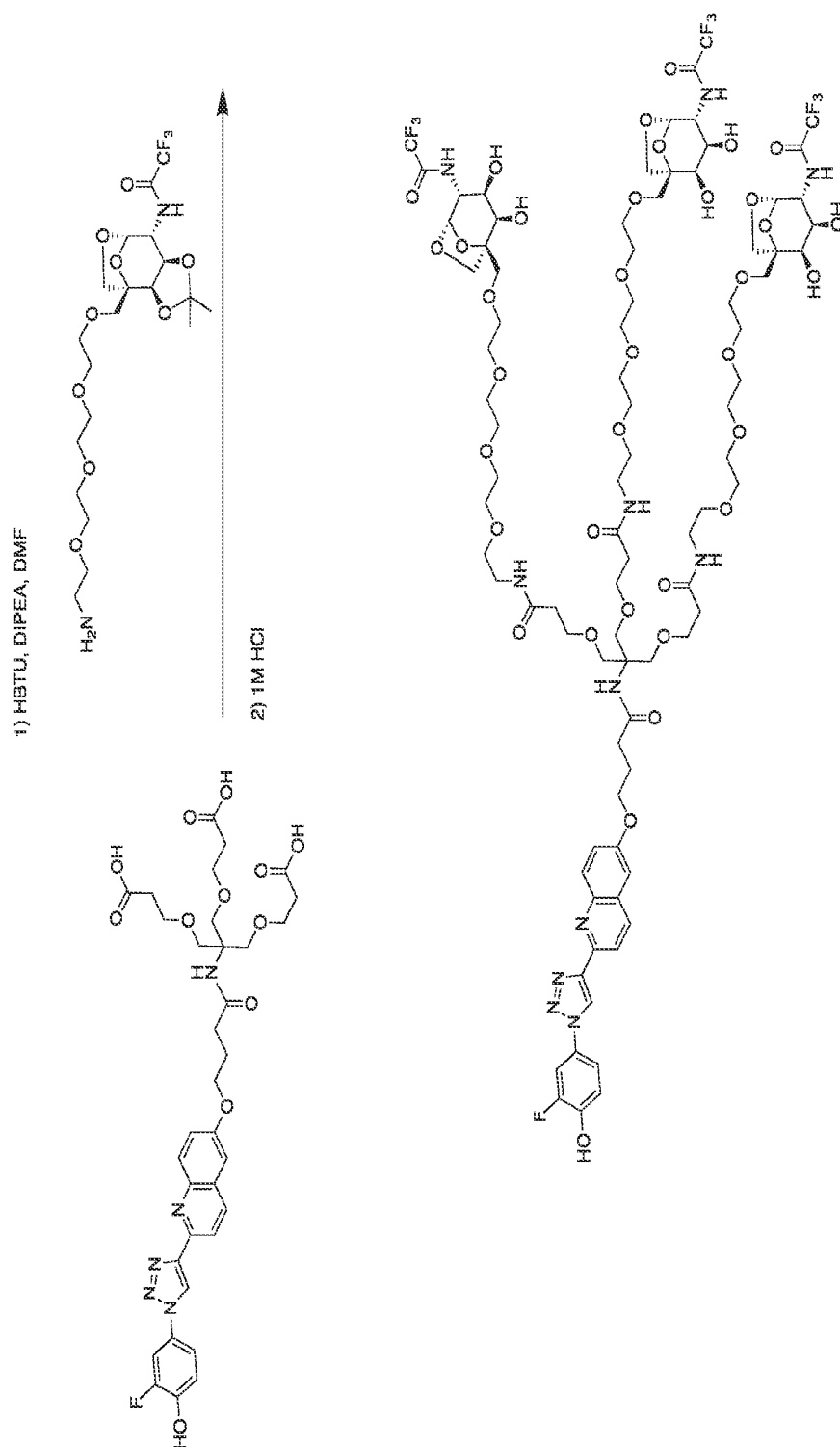


FIGURE 34

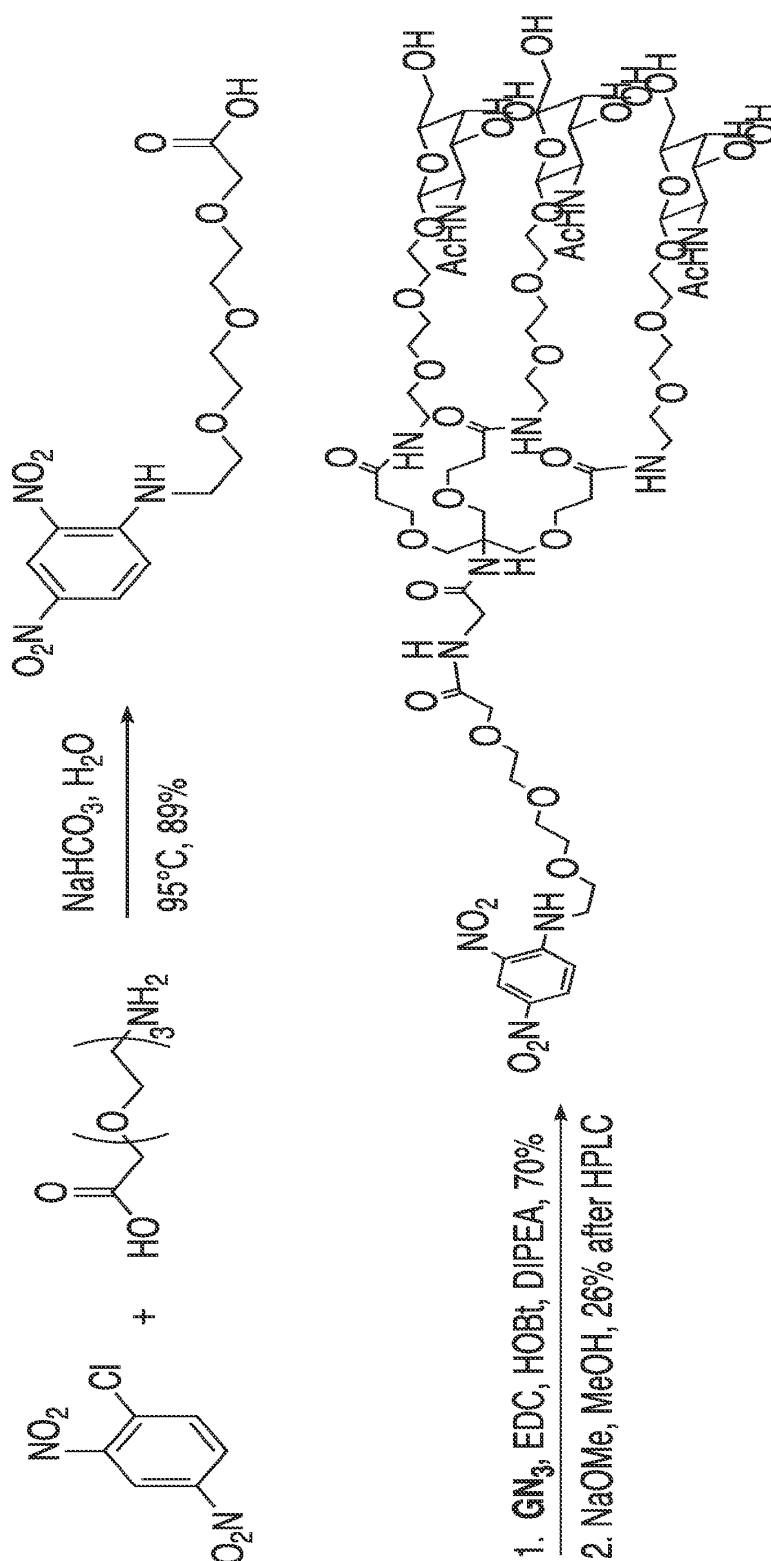


FIGURE 35

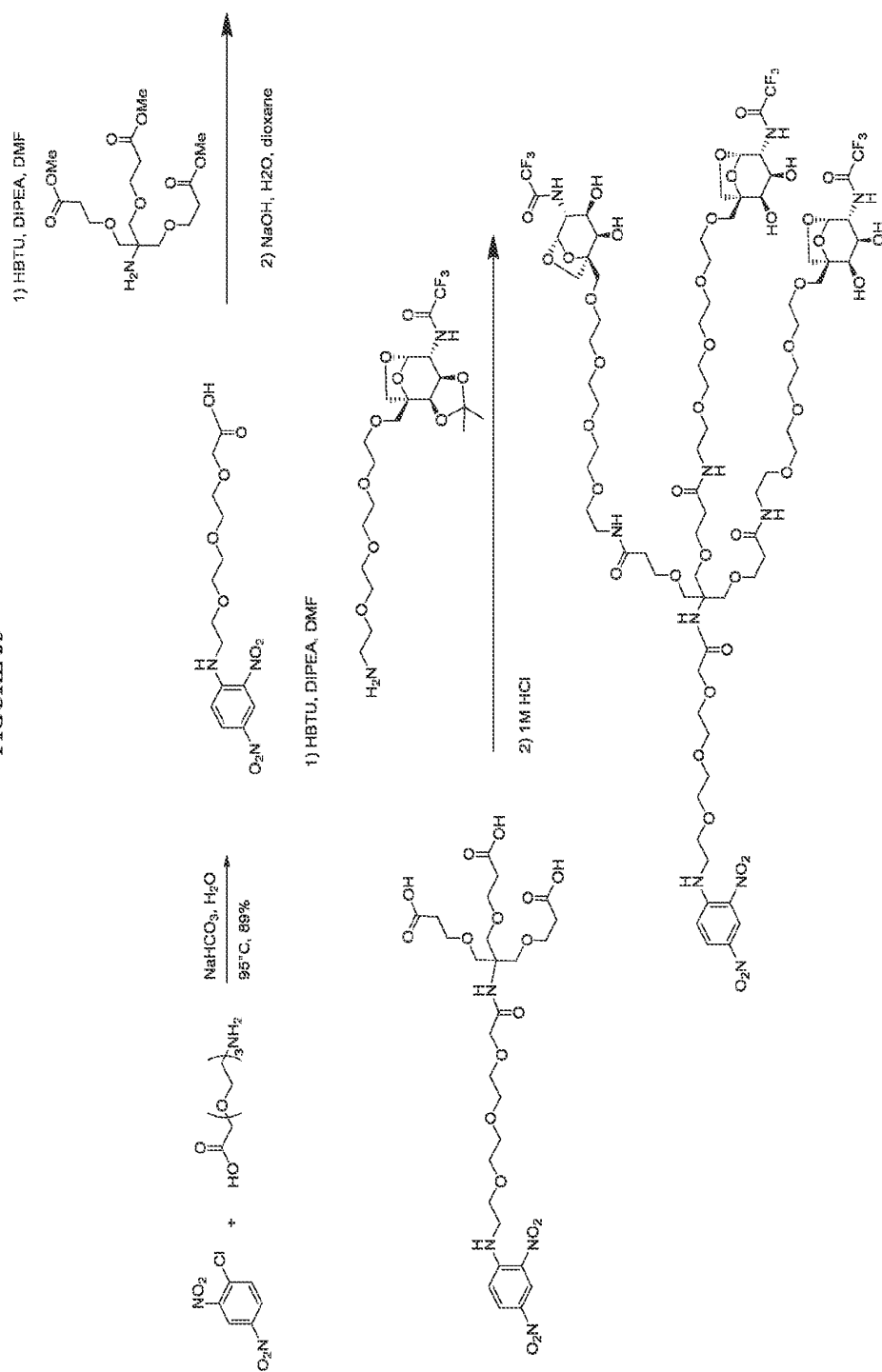


FIGURE 36

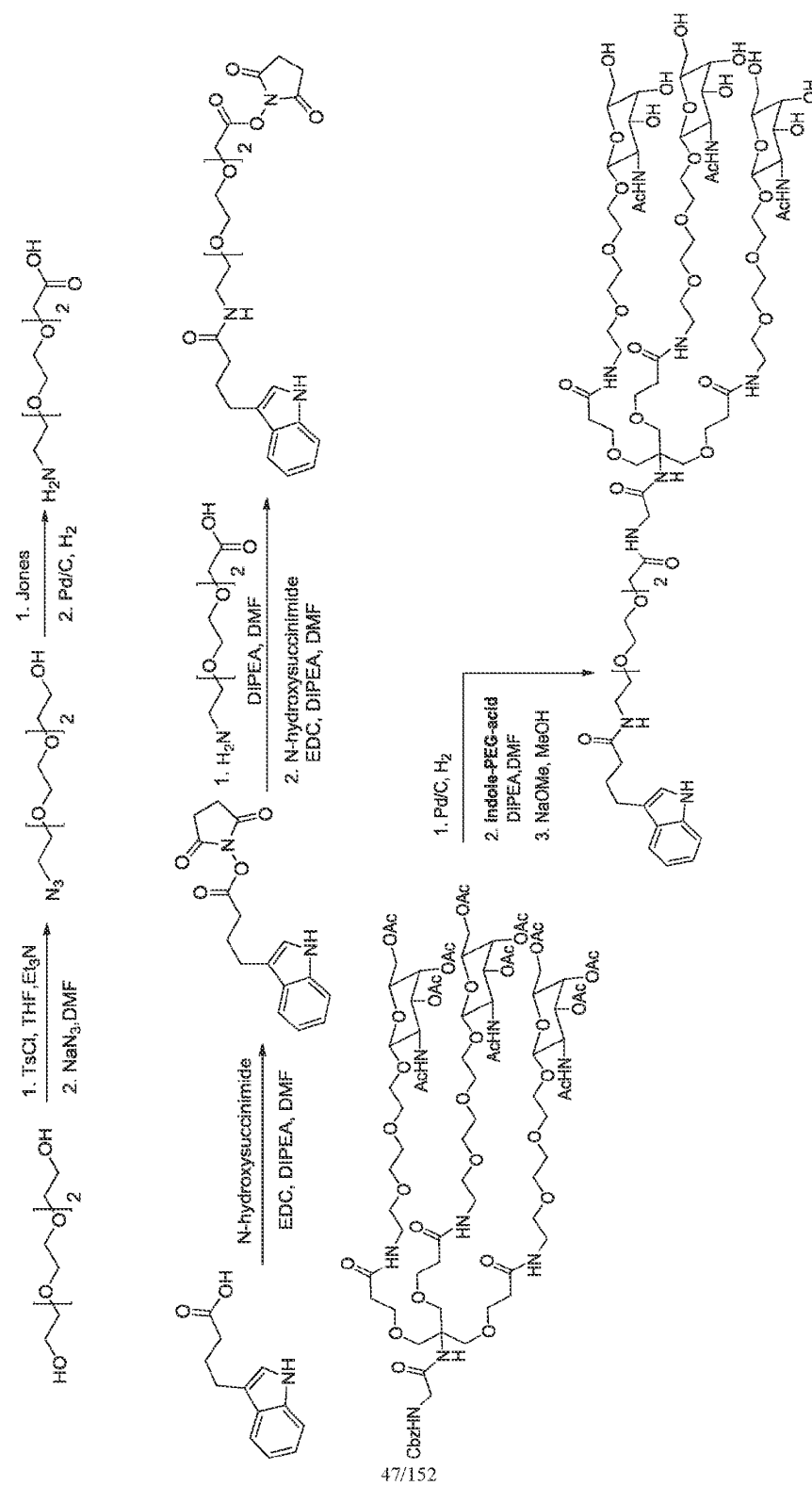


FIGURE 37

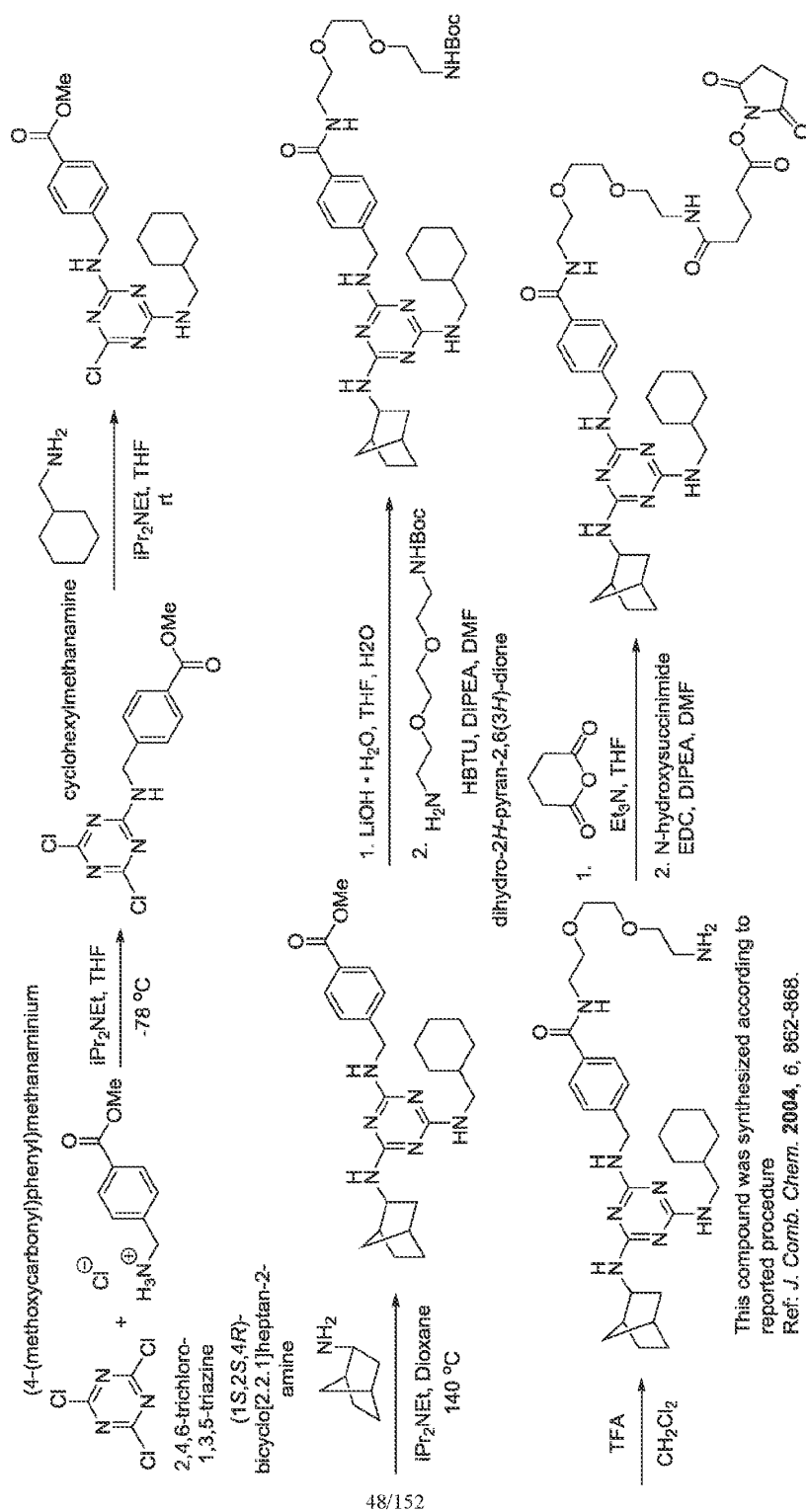


FIGURE 37 (Cont'd)

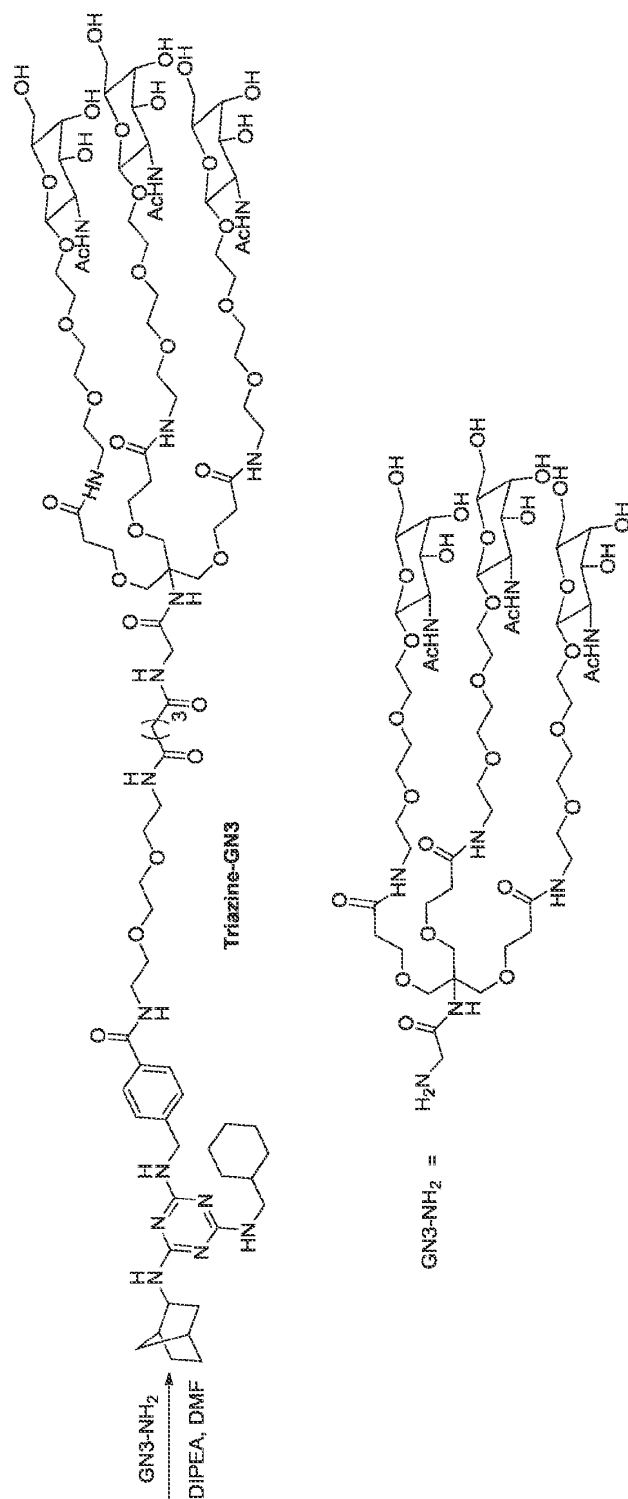


FIGURE 38

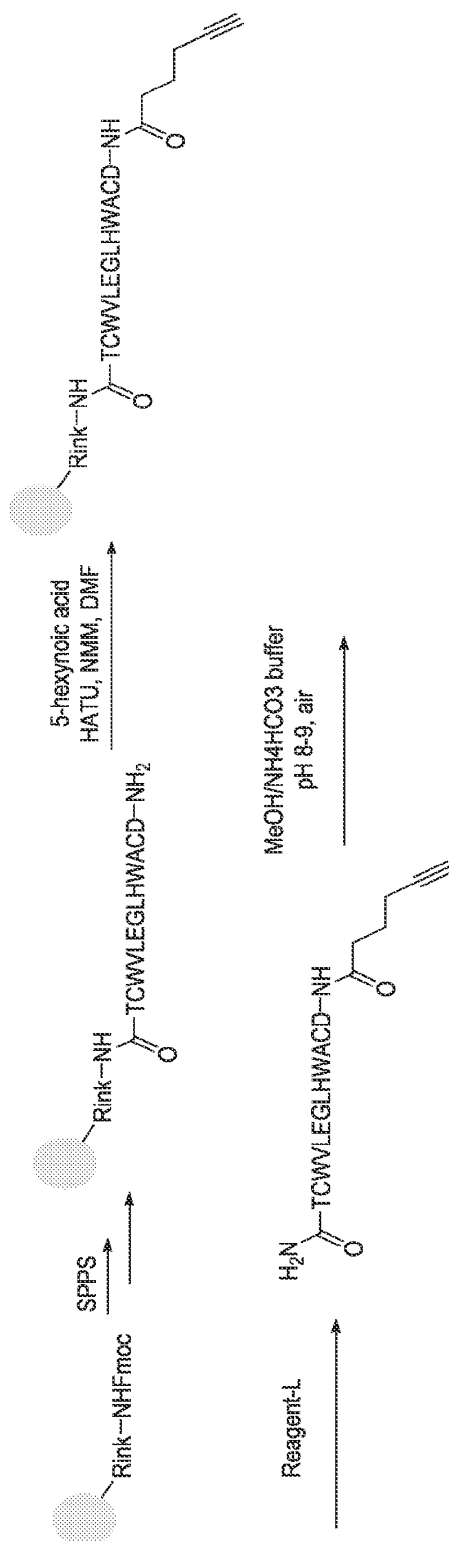


FIGURE 38 (Cont'd)

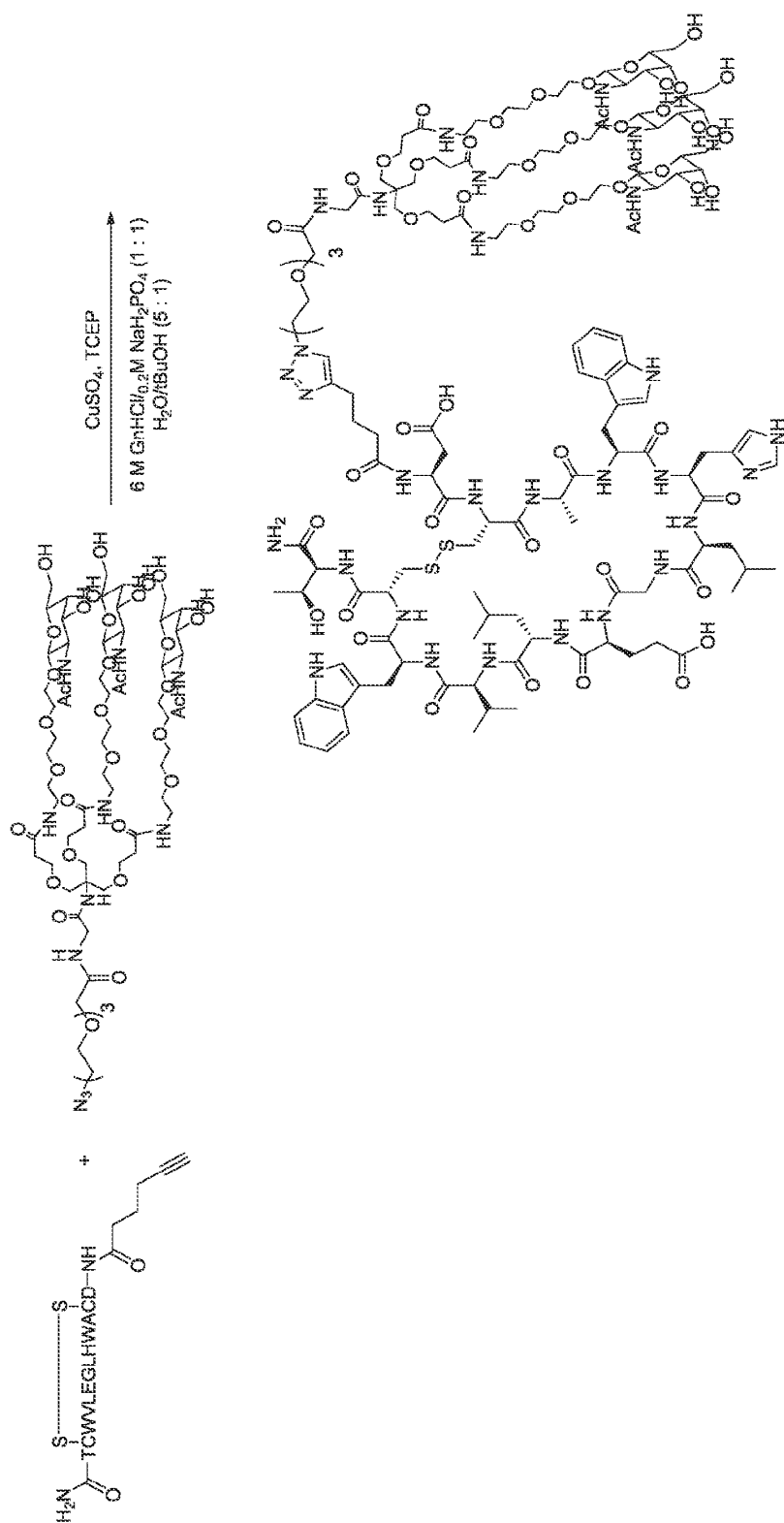


FIGURE 39

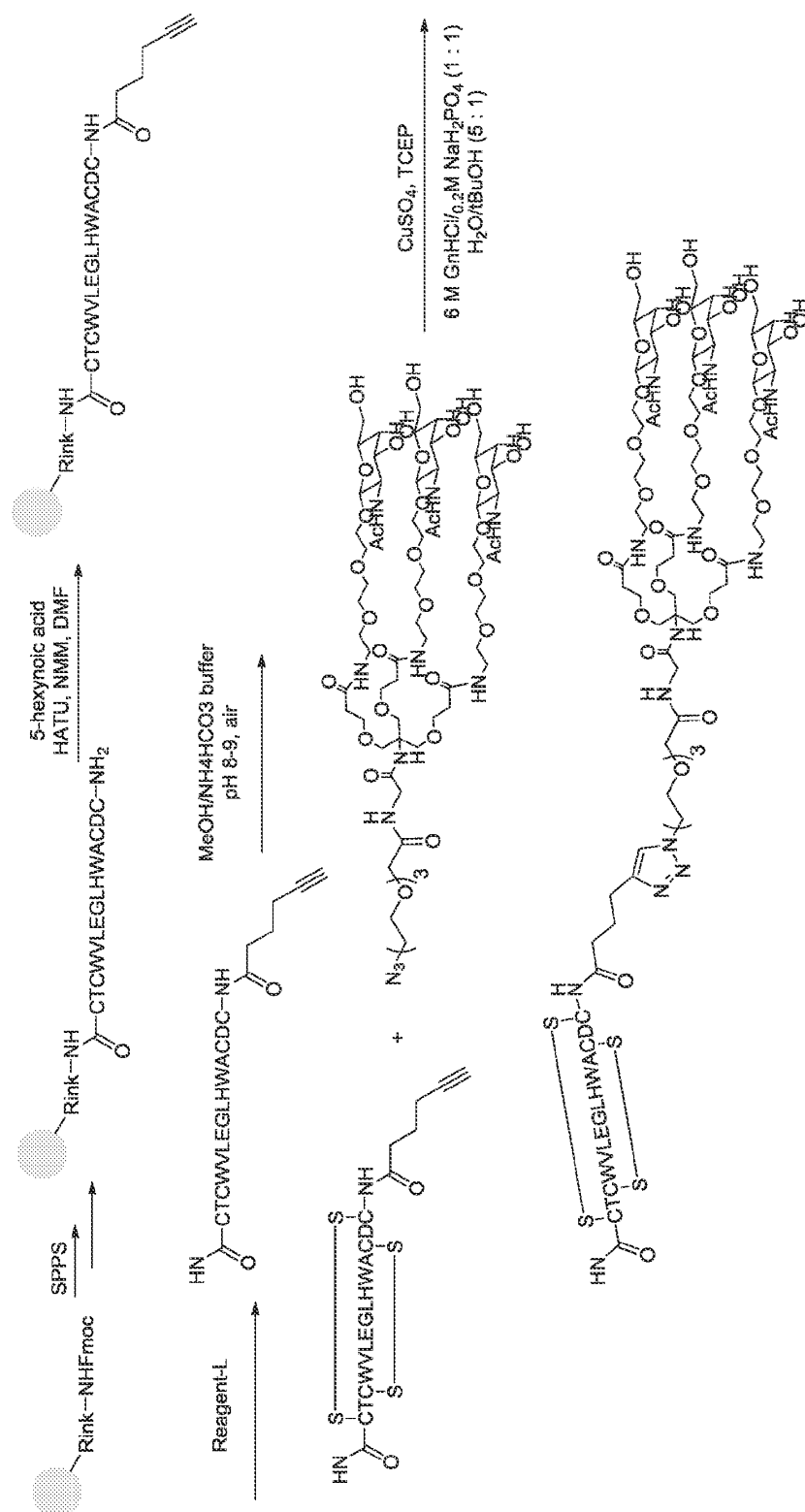


FIGURE 40

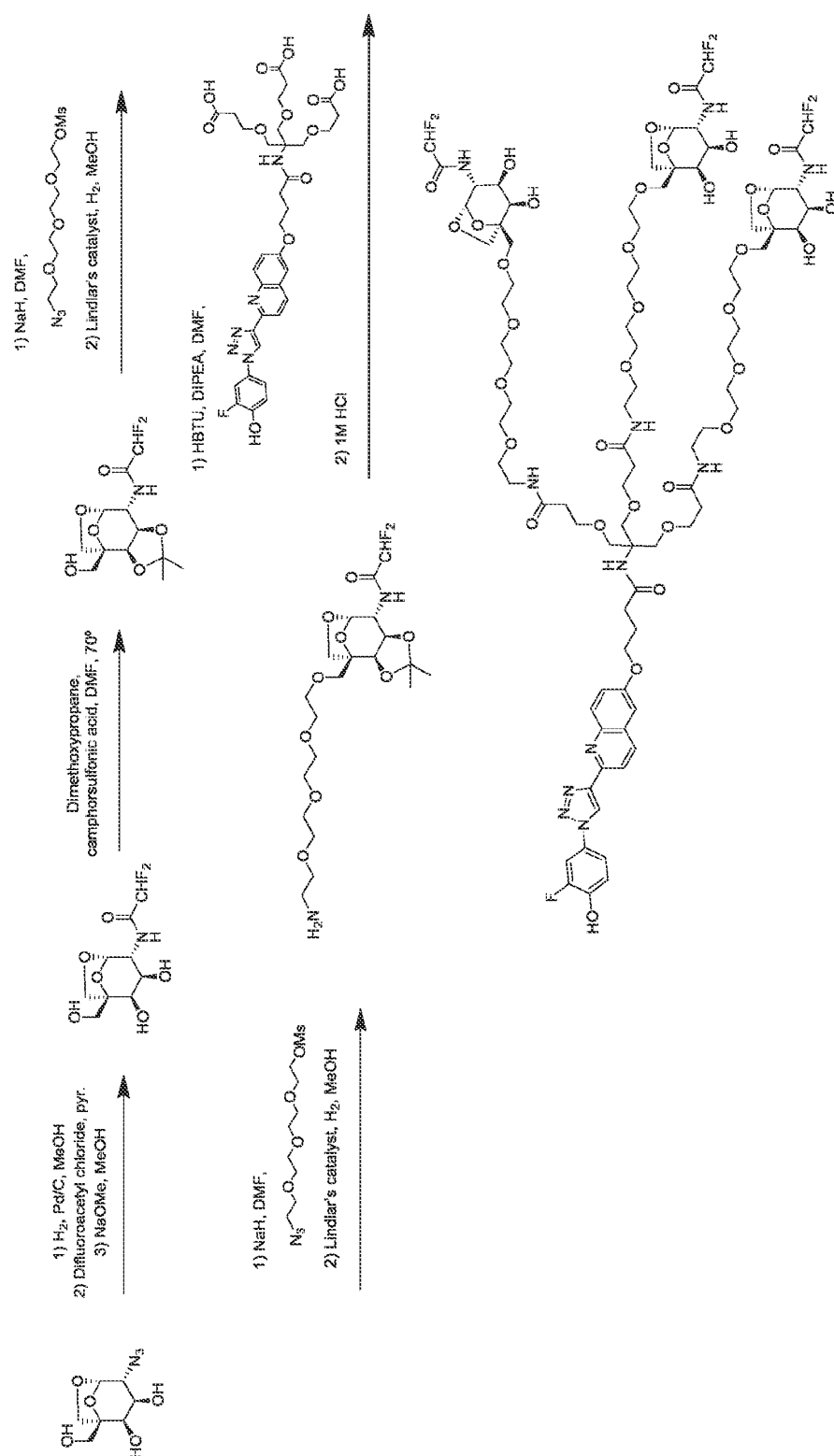


FIGURE 41

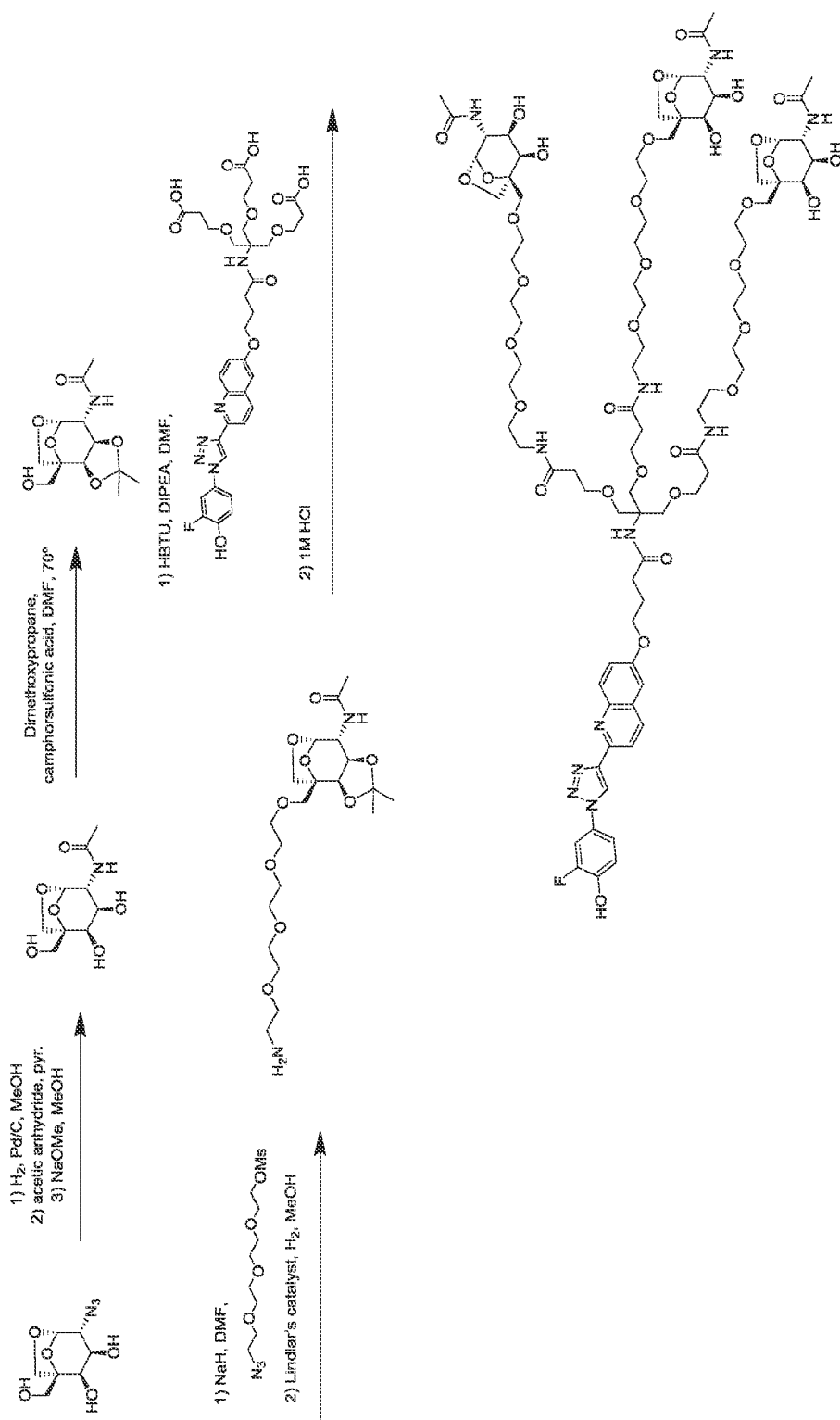


FIGURE 42

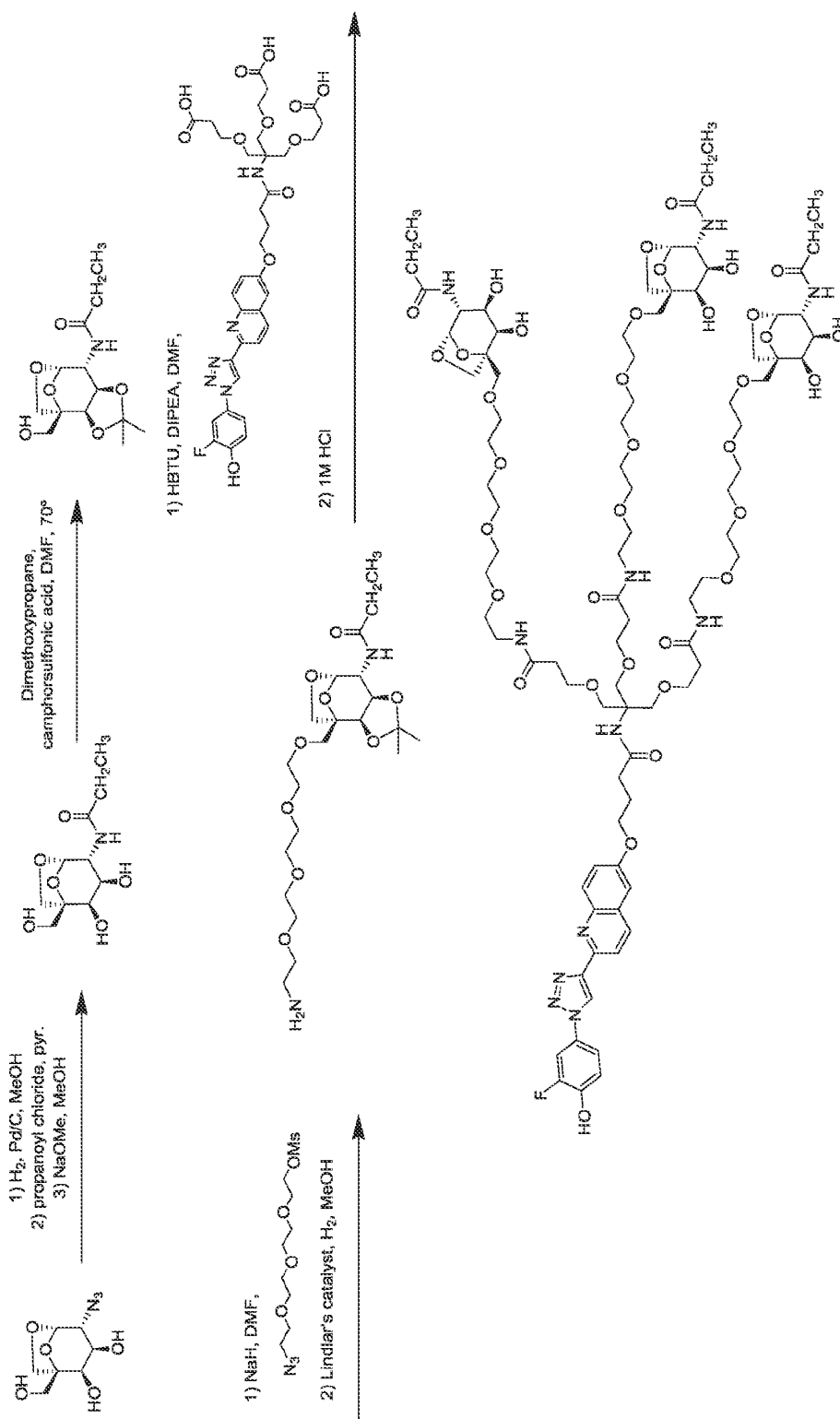


FIGURE 43

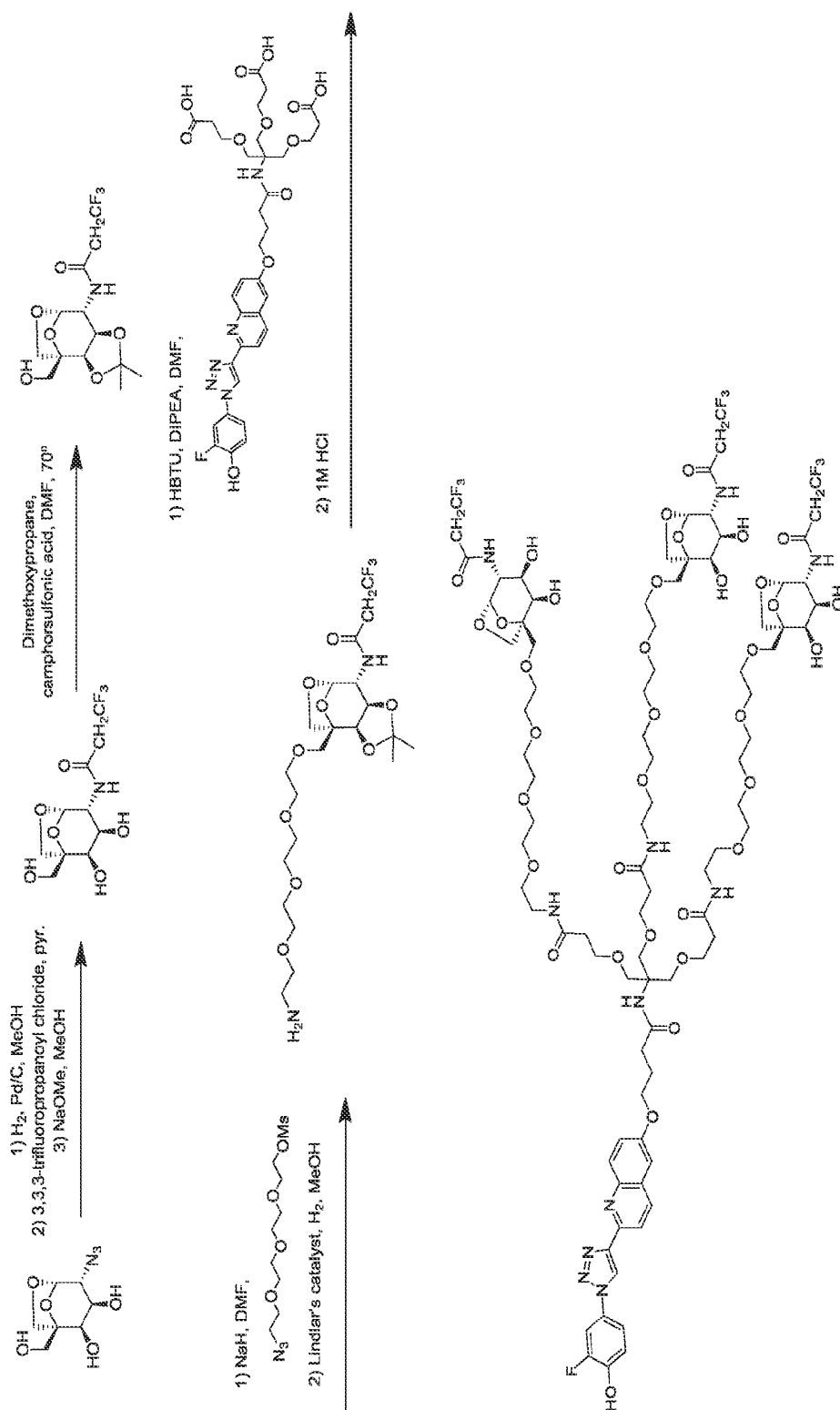


FIGURE 44

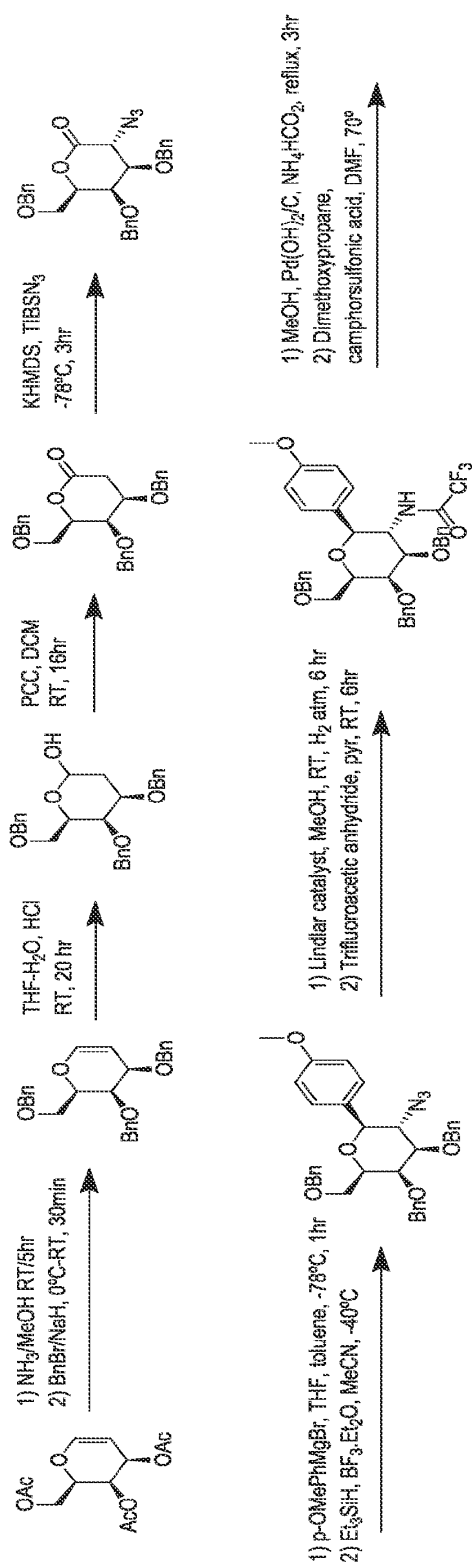


FIGURE 44 (Cont'd)

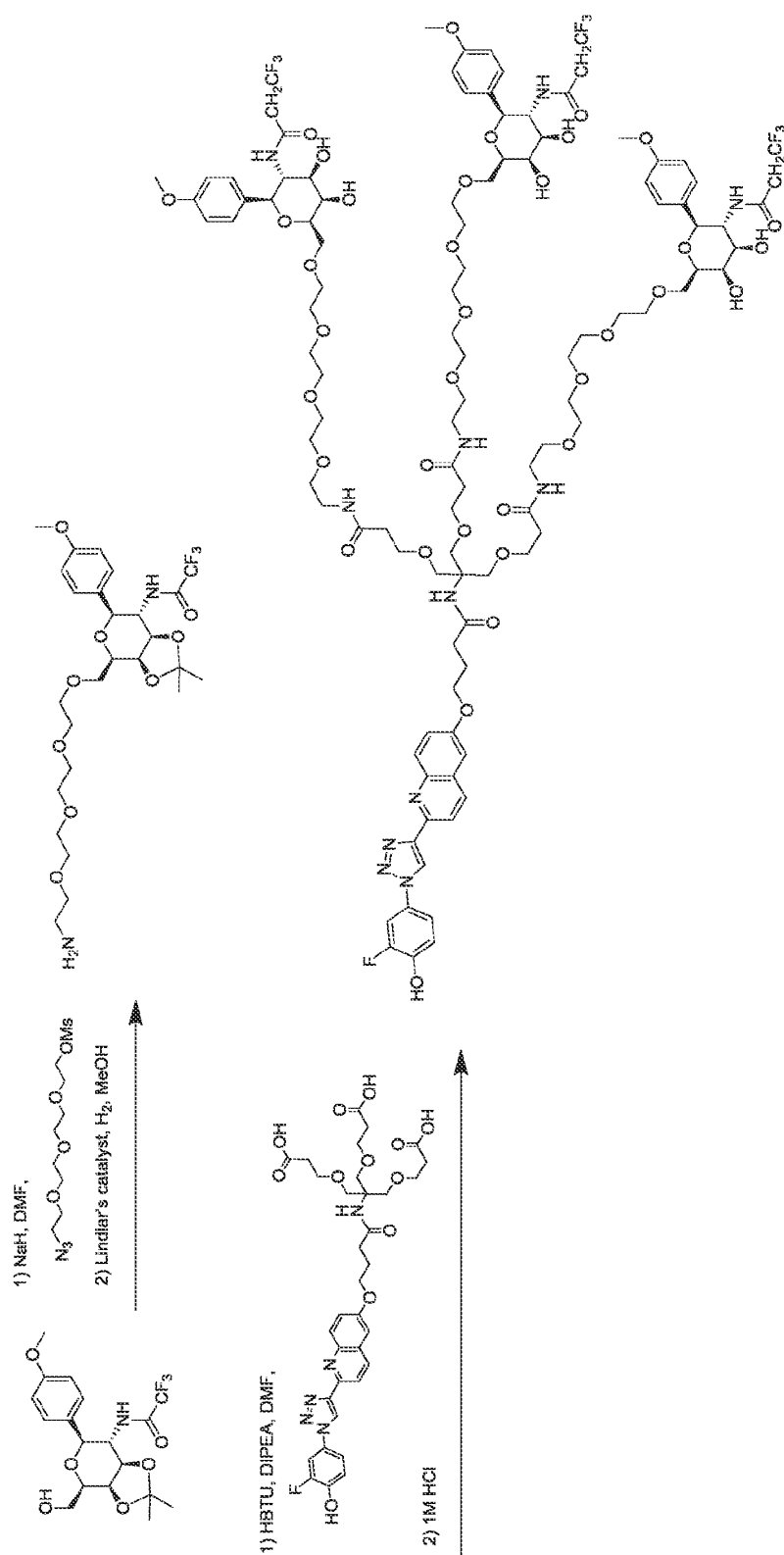


FIGURE 45

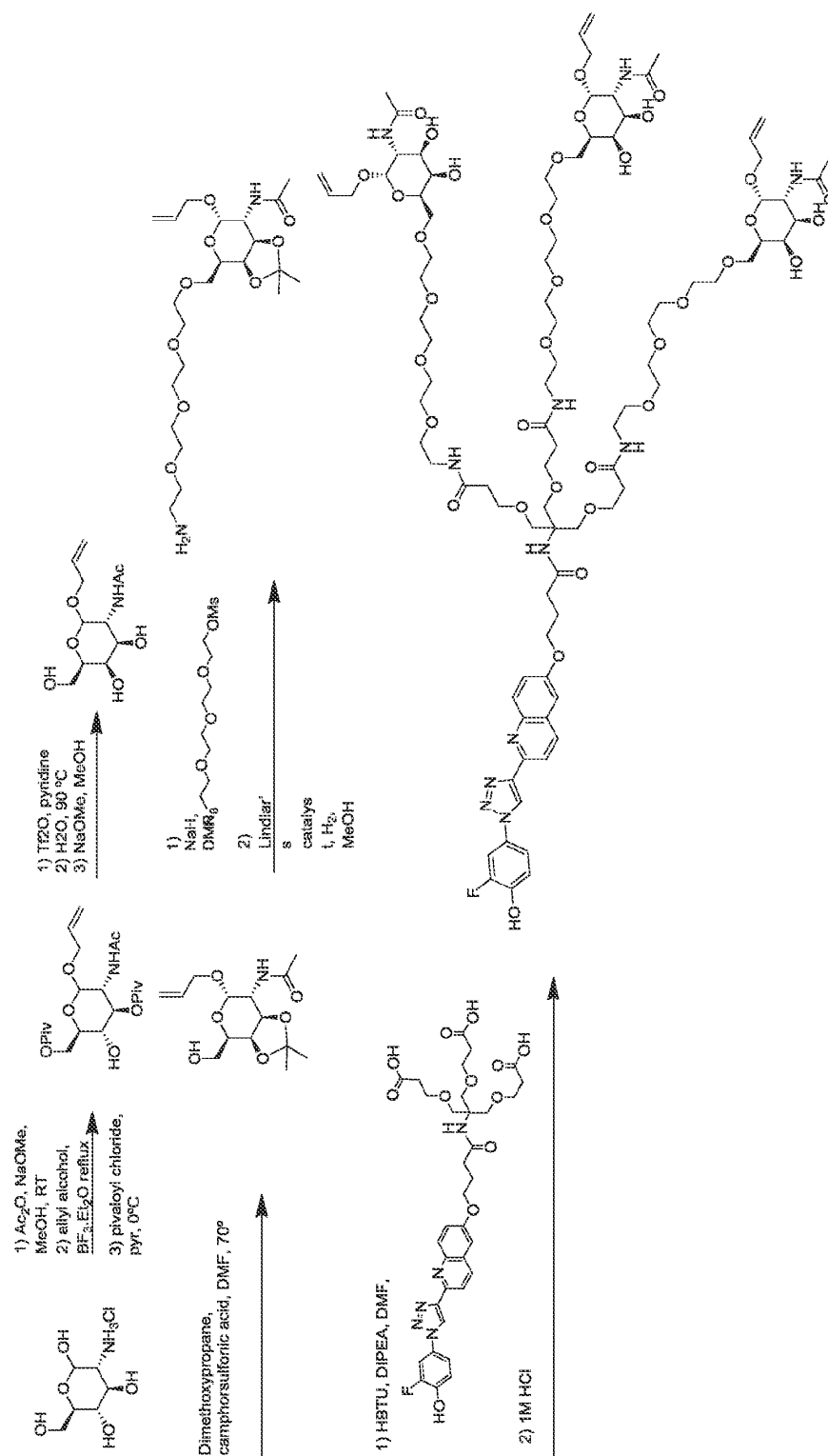


FIGURE 46

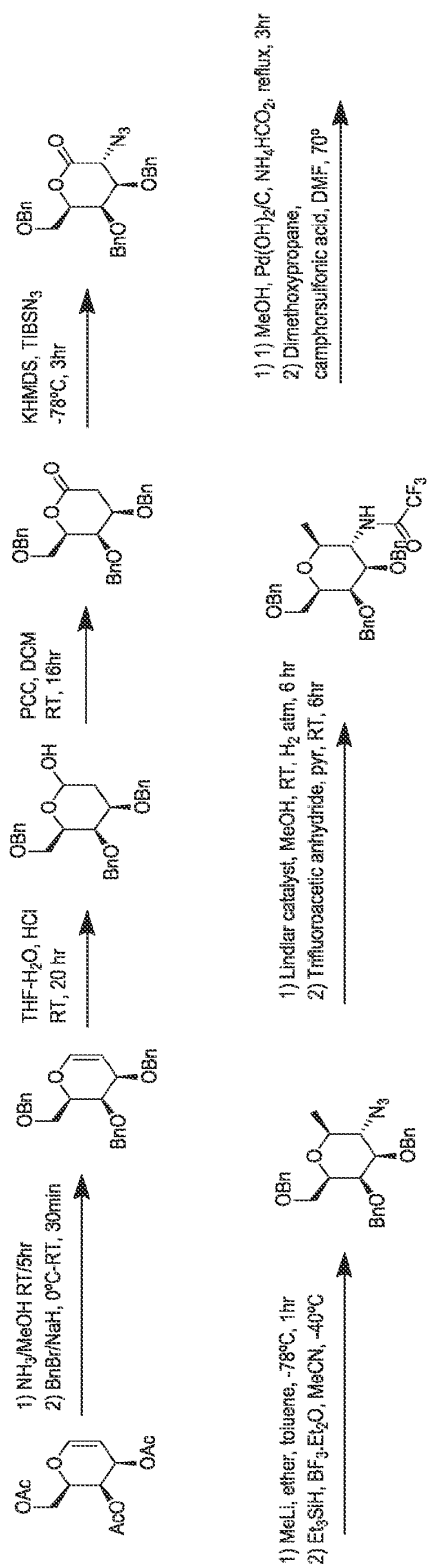


FIGURE 46 (Cont'd)

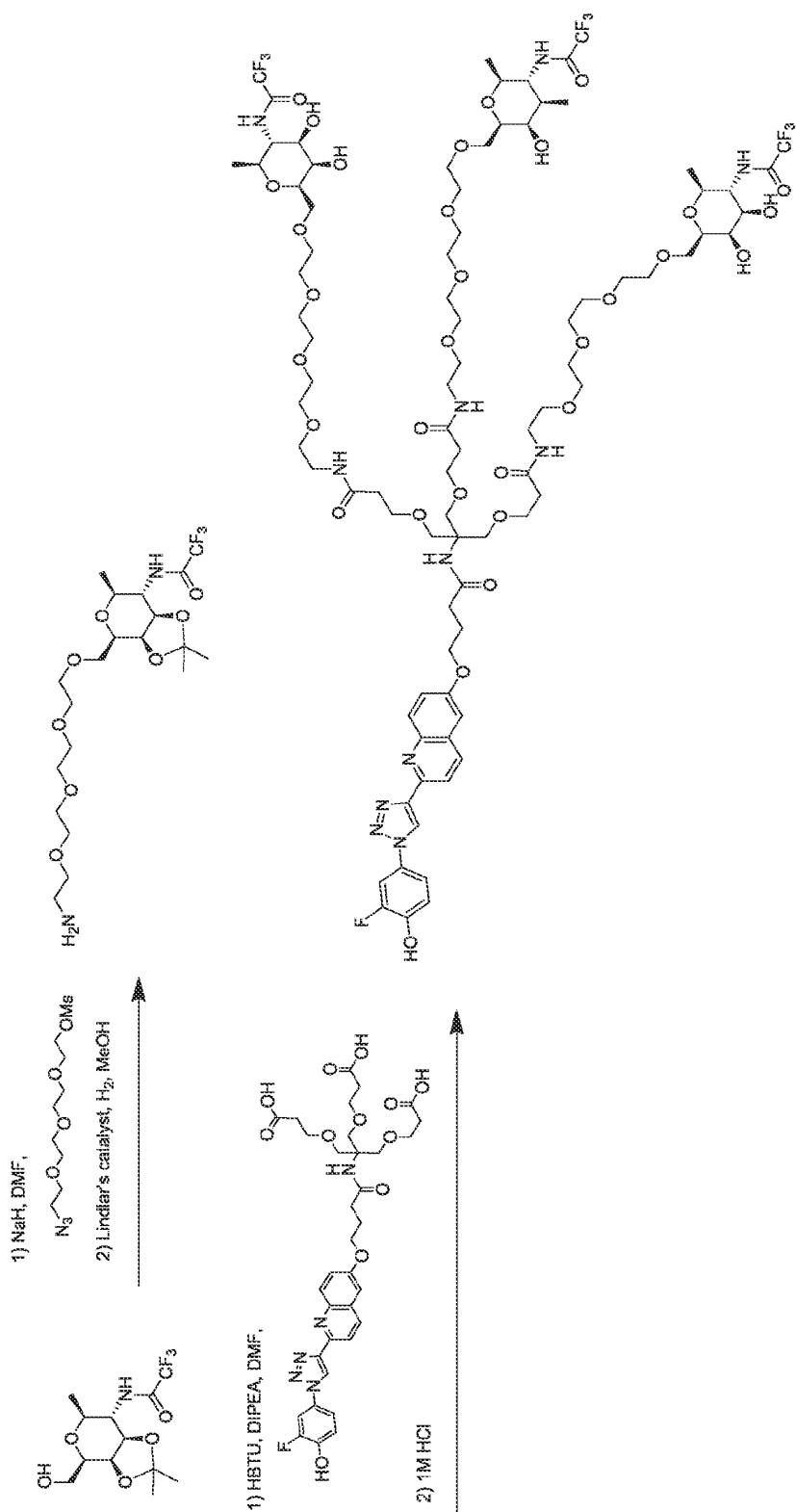


FIGURE 47

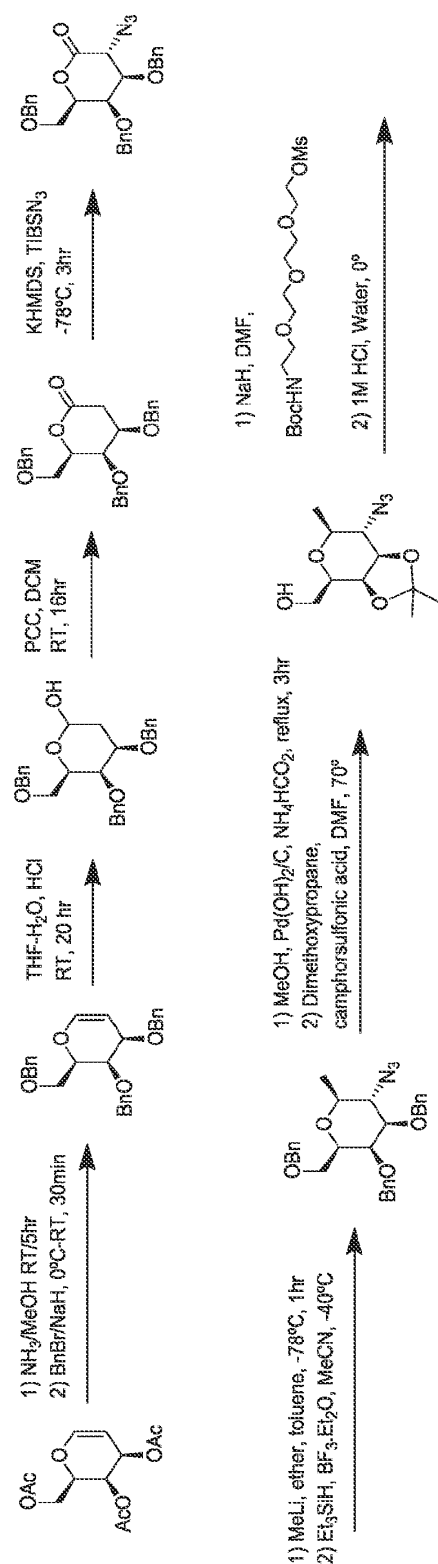


FIGURE 47 (Cont'd)

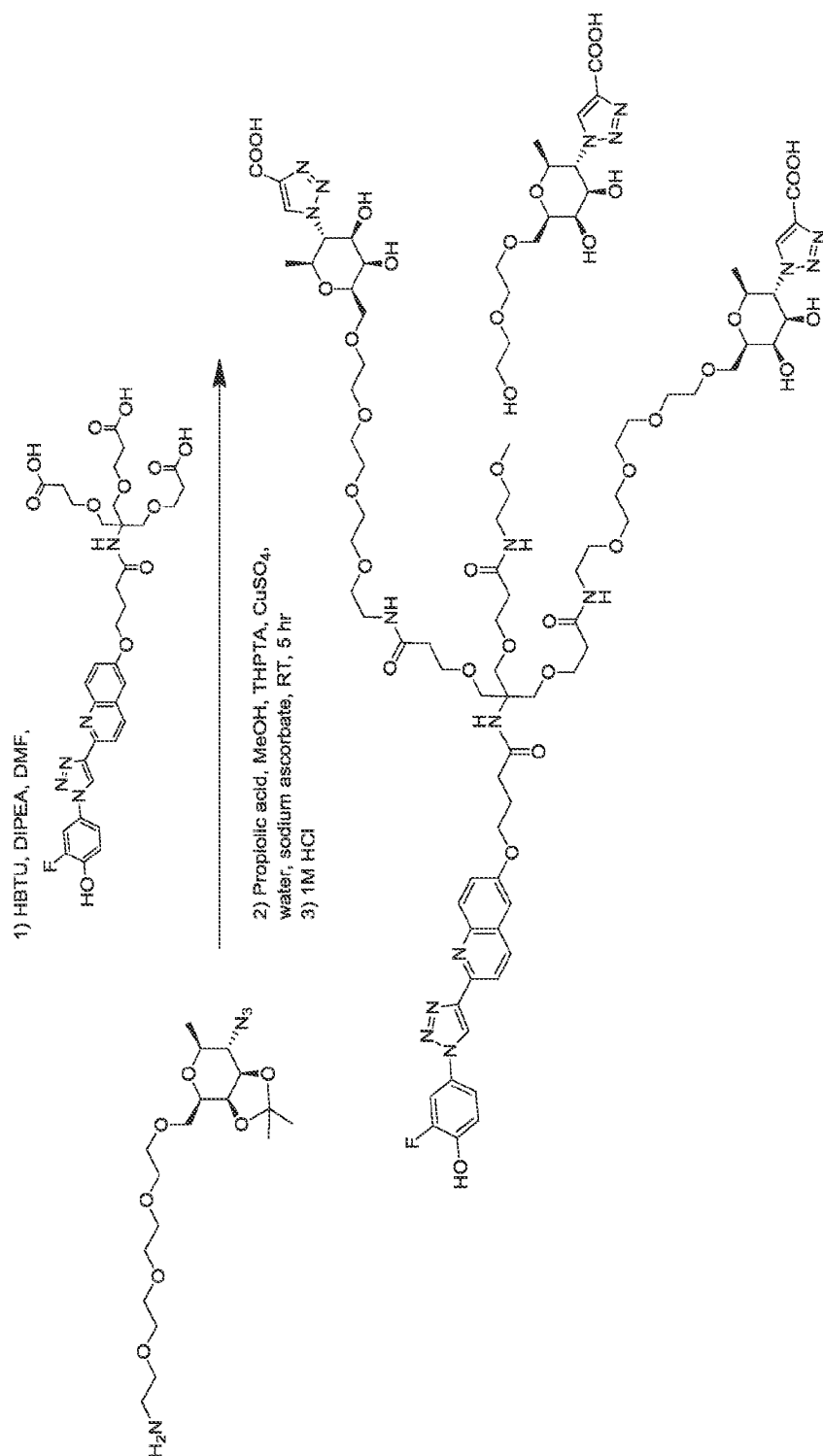


FIGURE 48

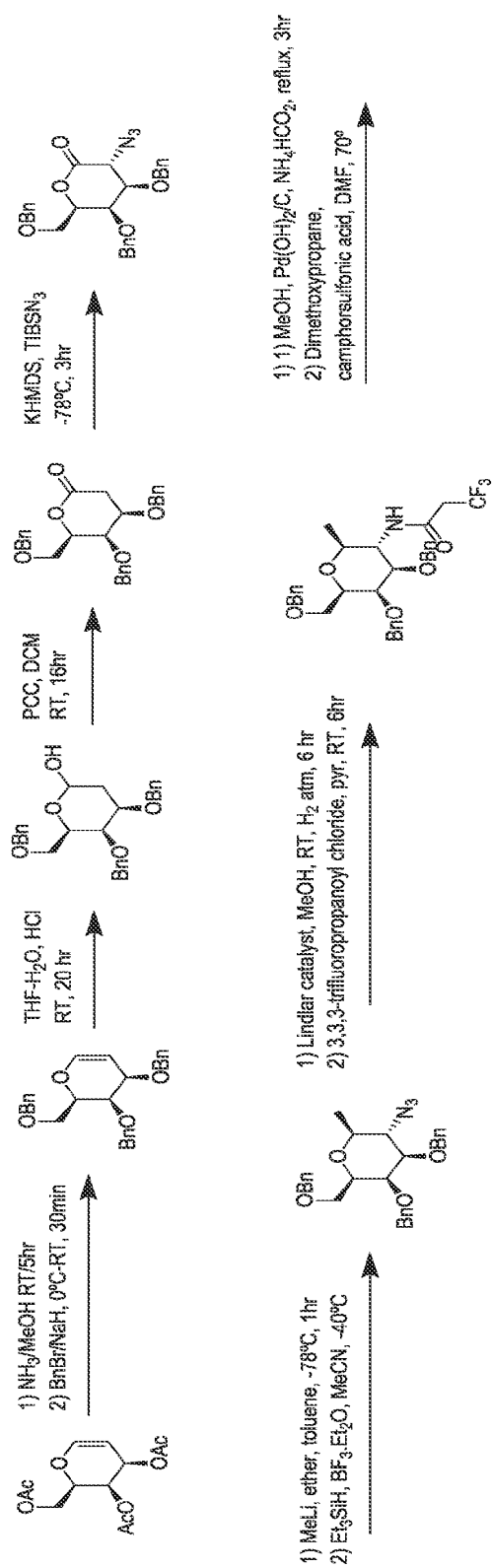


FIGURE 48 (Cont'd)

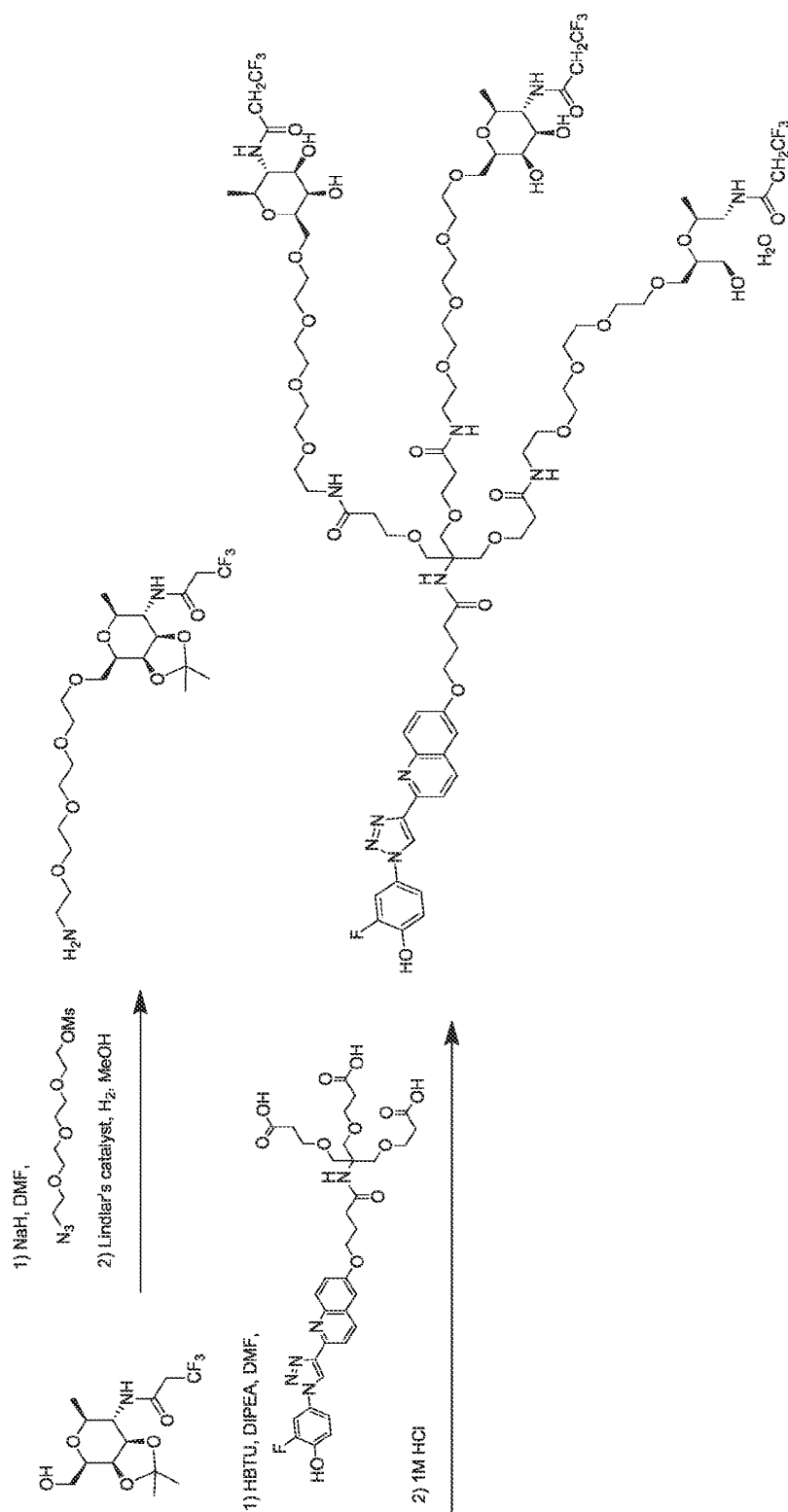


FIGURE 49

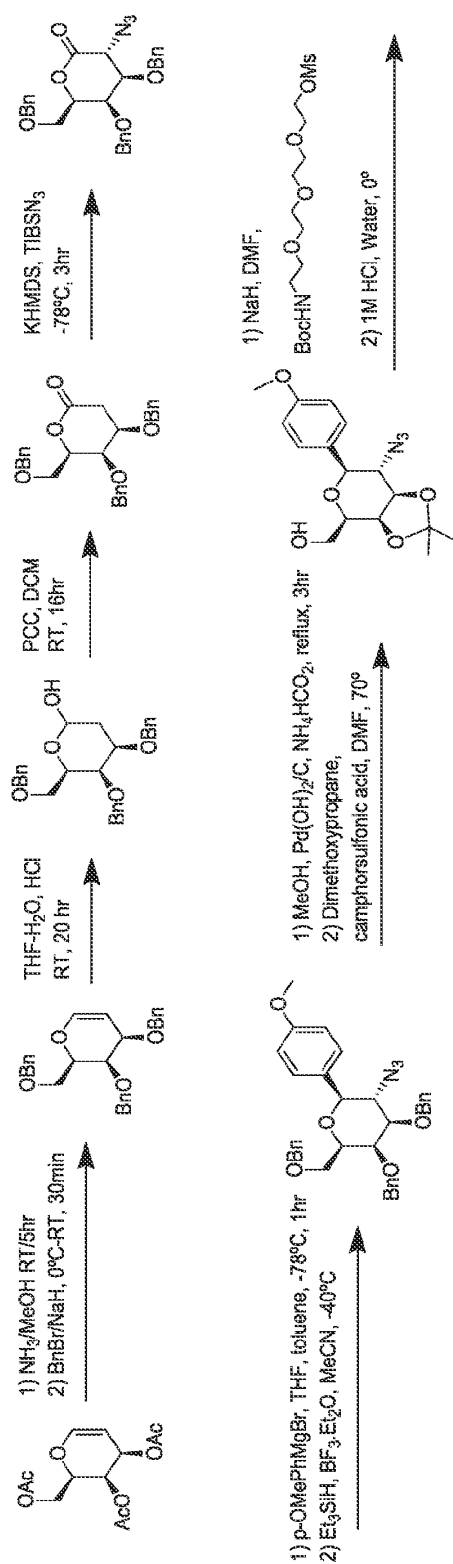


FIGURE 49 (Cont'd)

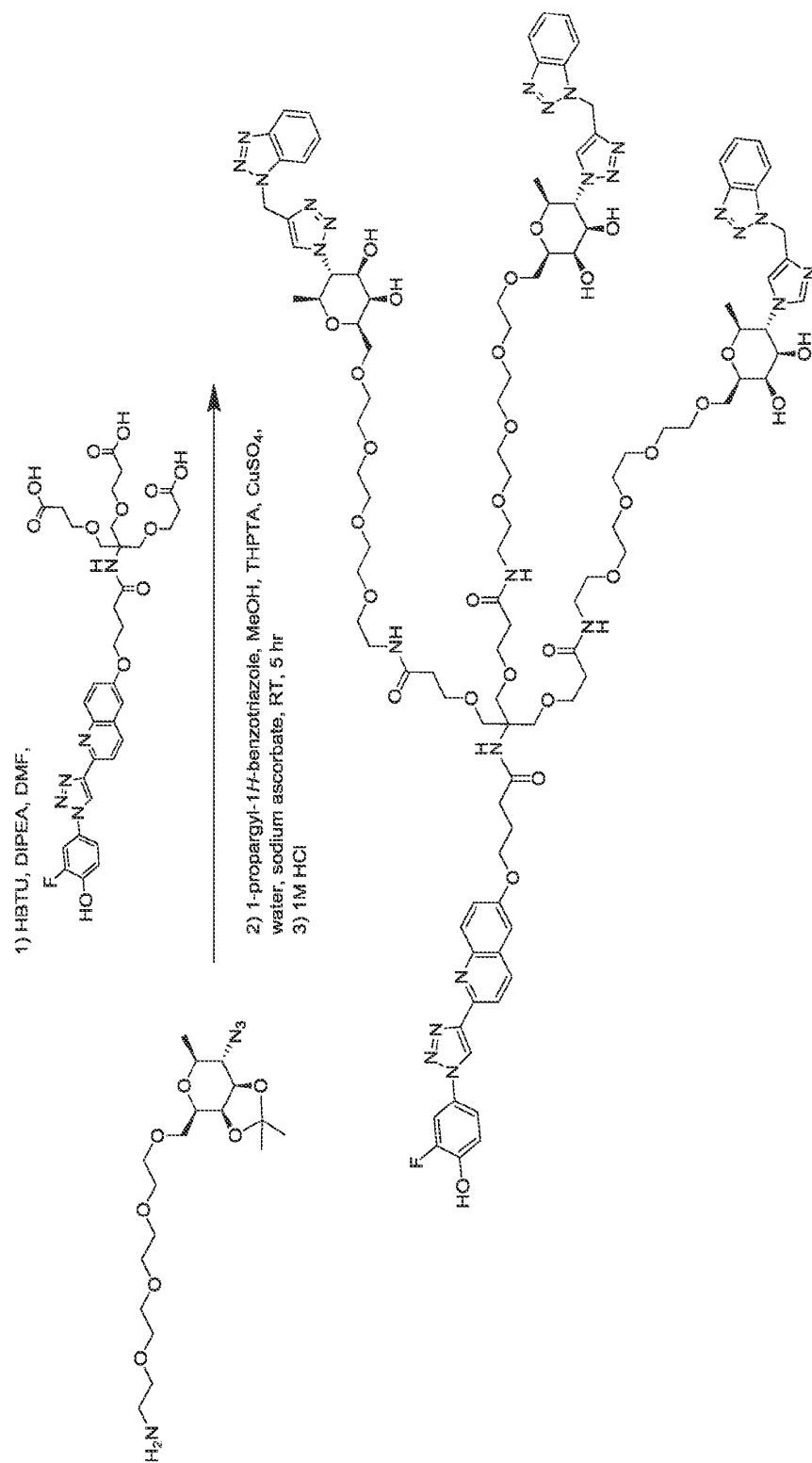


FIGURE 50

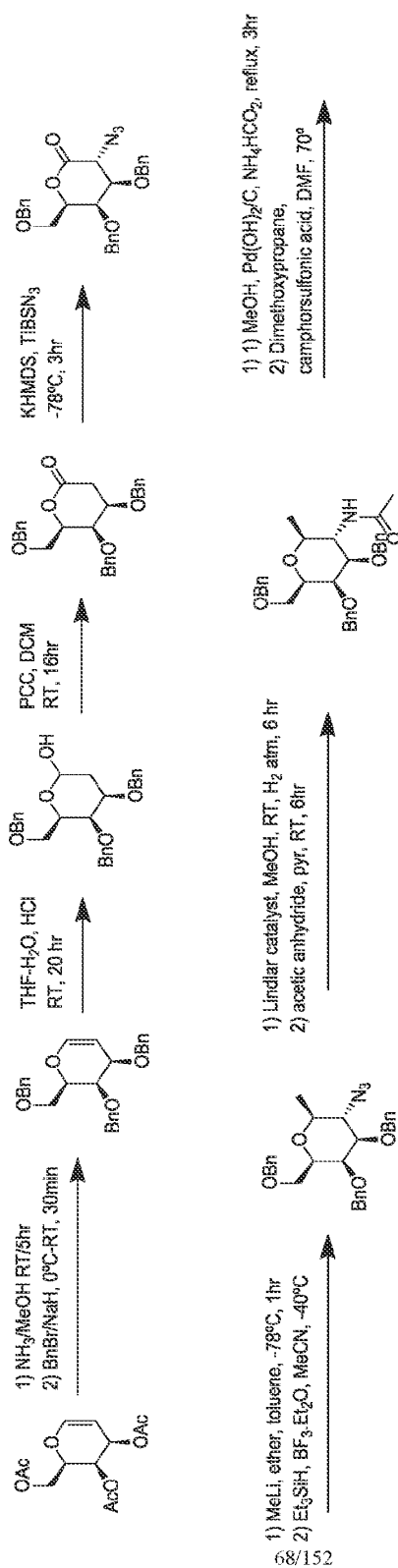


FIGURE 50 (Cont'd)

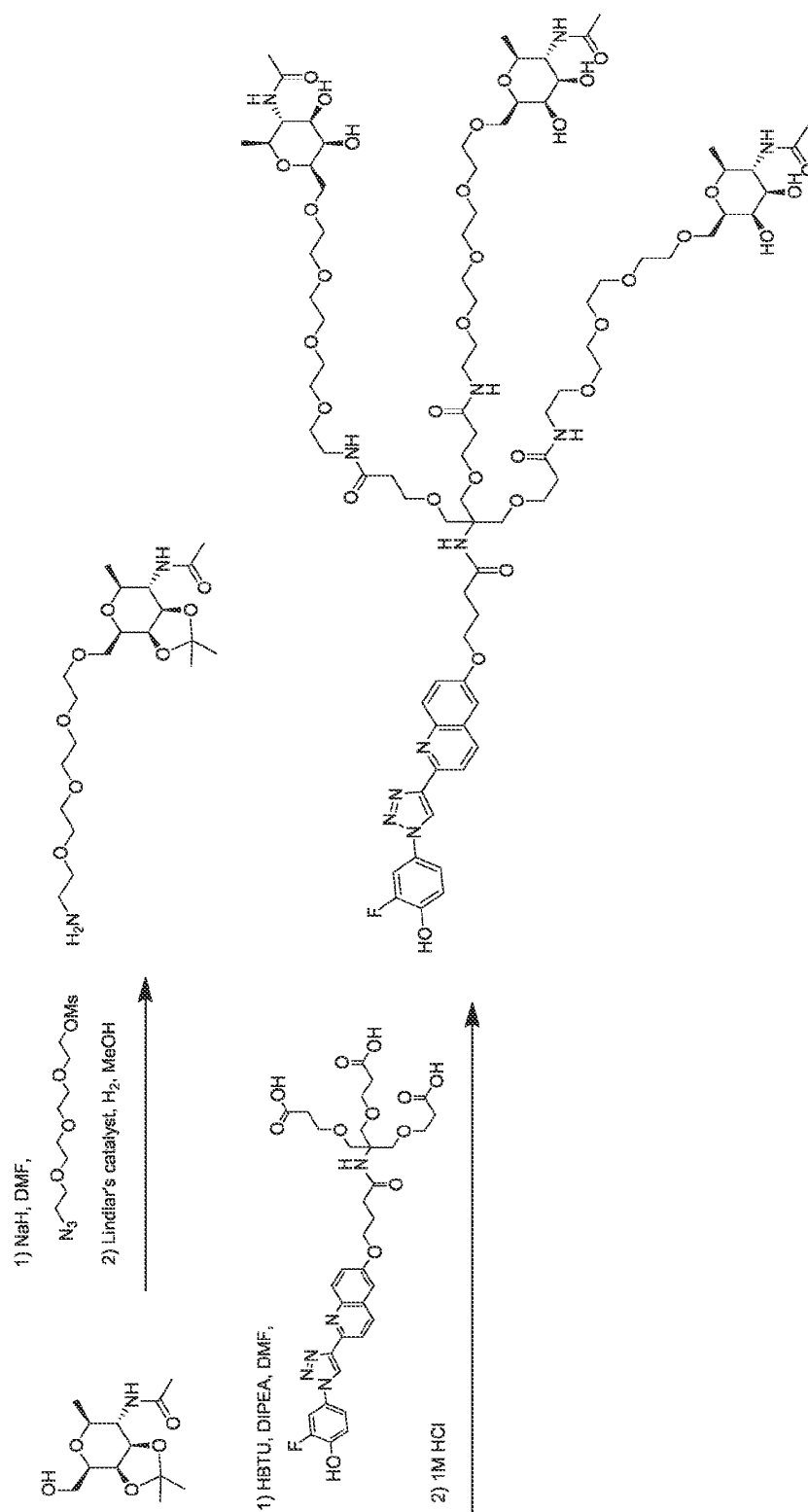


FIGURE S1

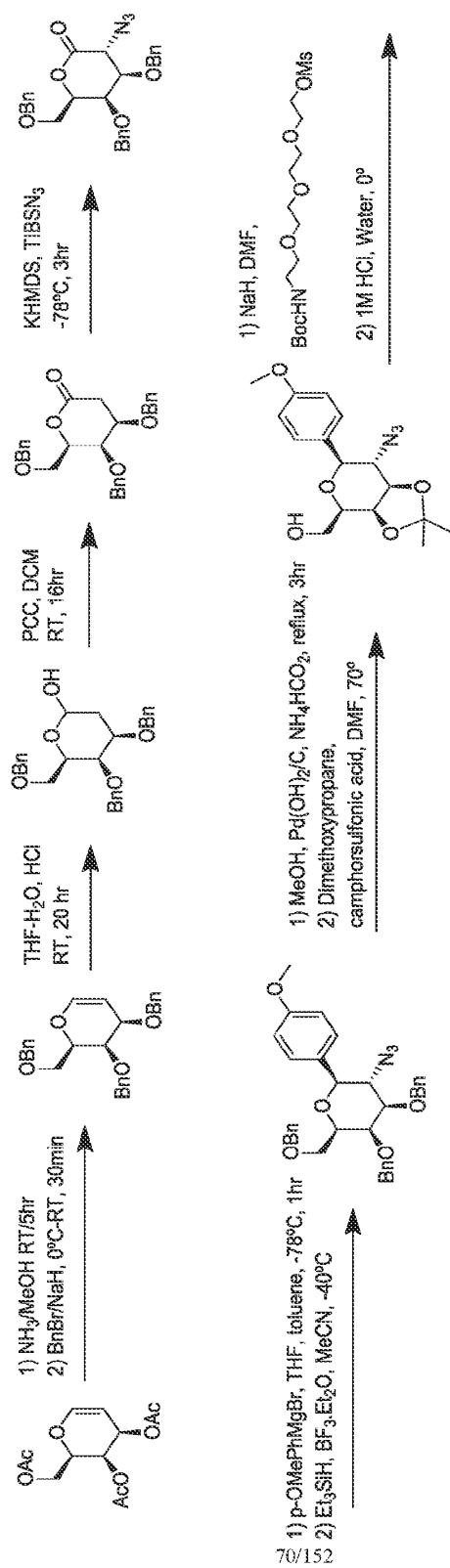


FIGURE 51 (Cont'd)

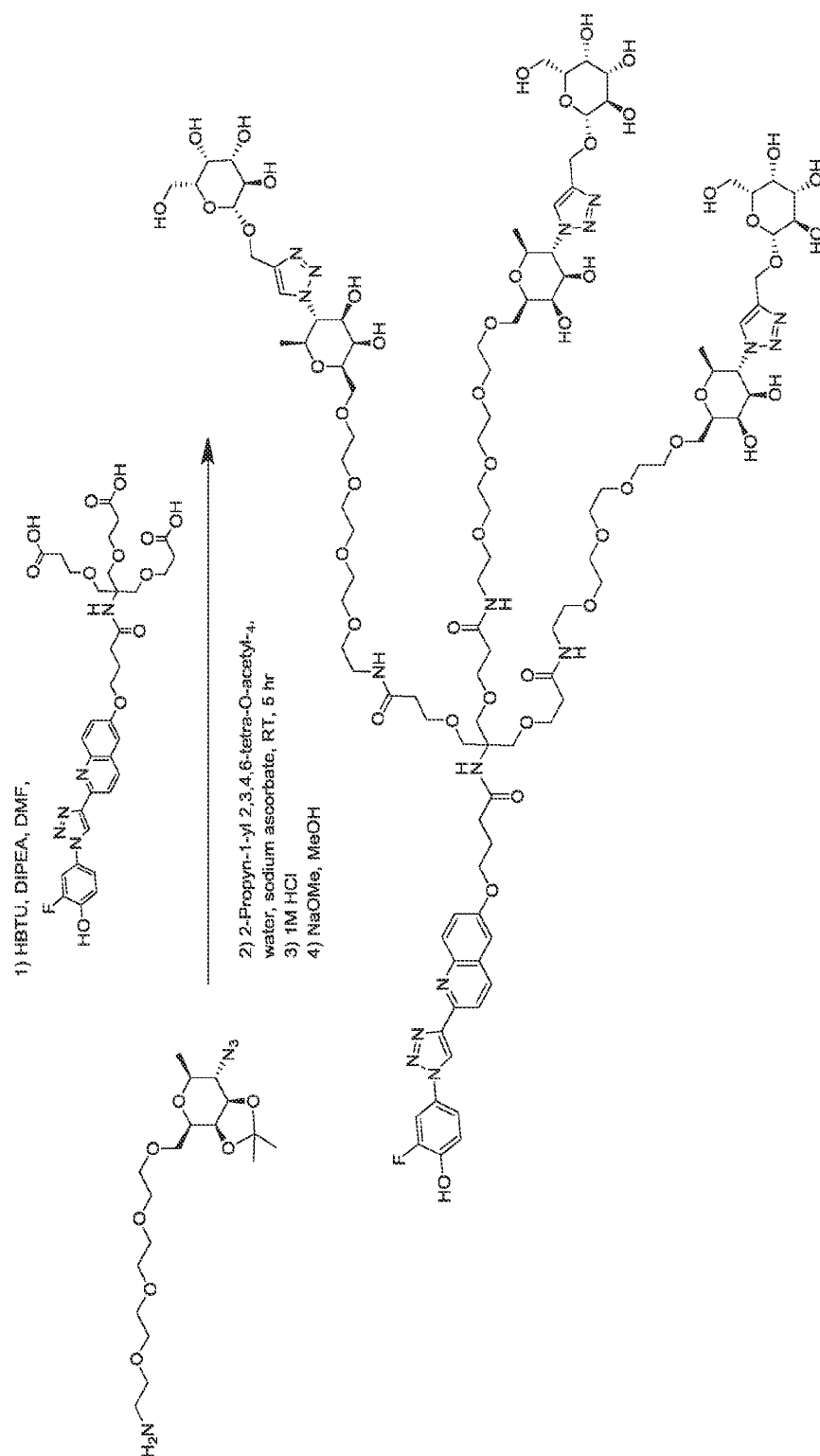


FIGURE S2

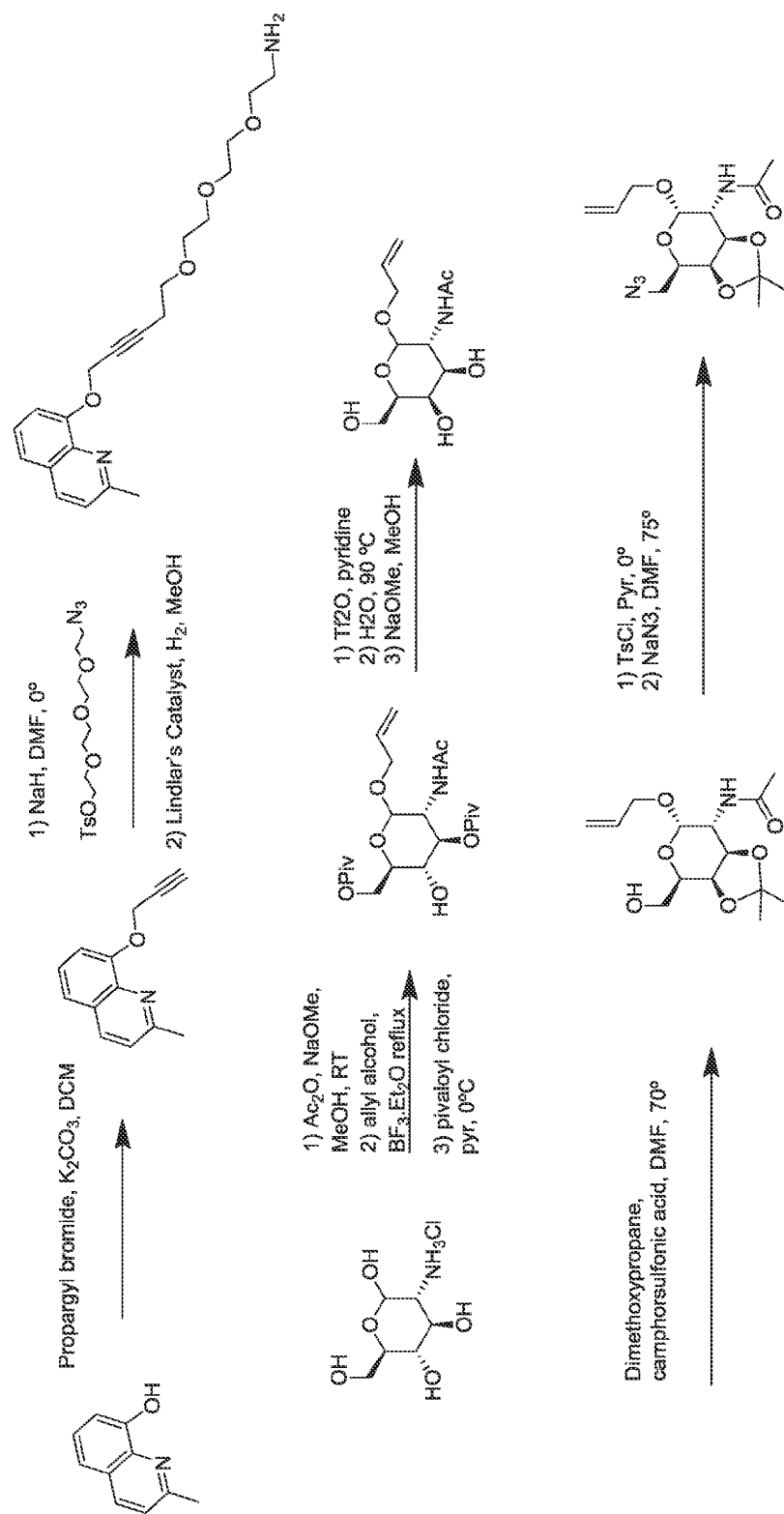


FIGURE S2 (Cont'd)

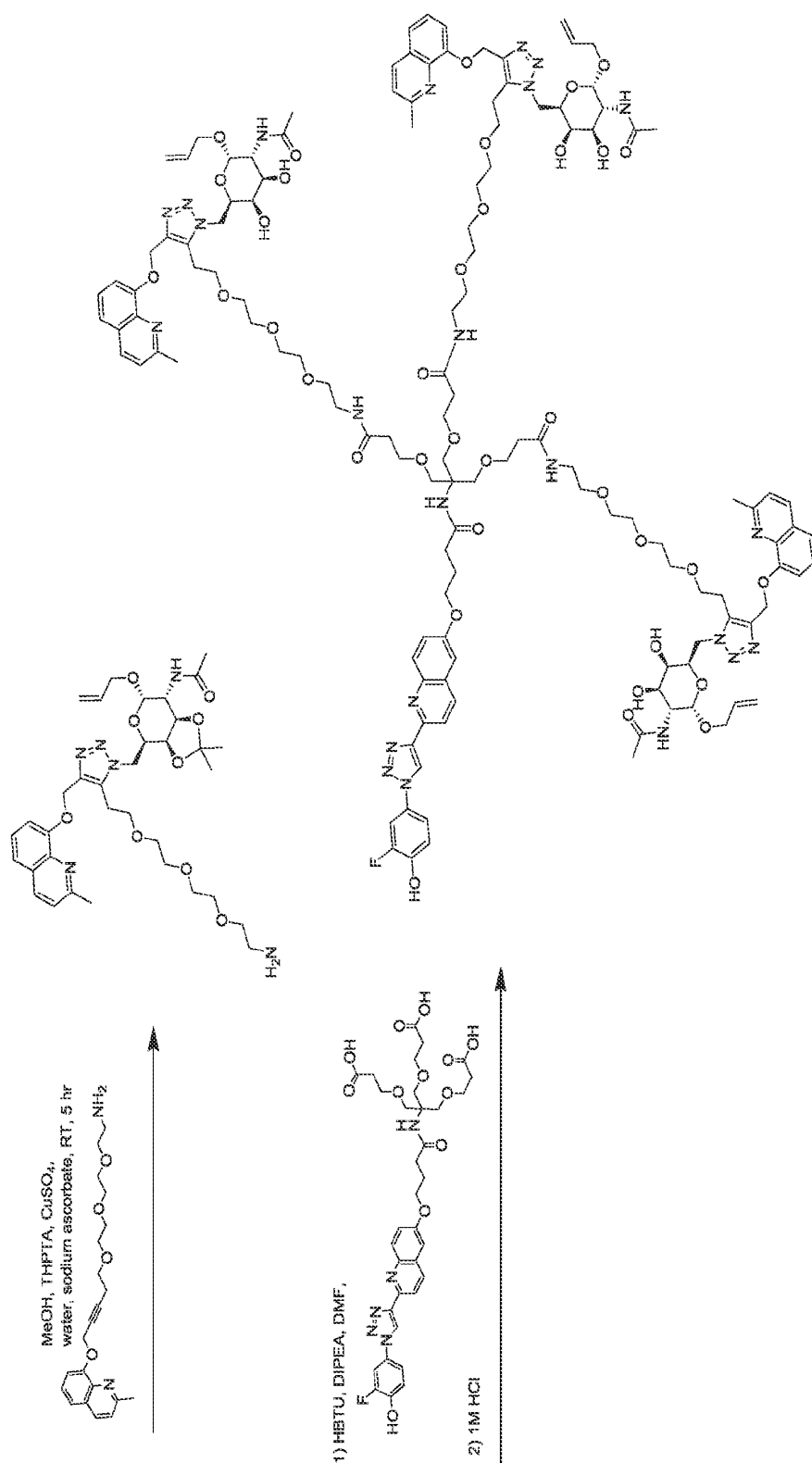


FIGURE S3

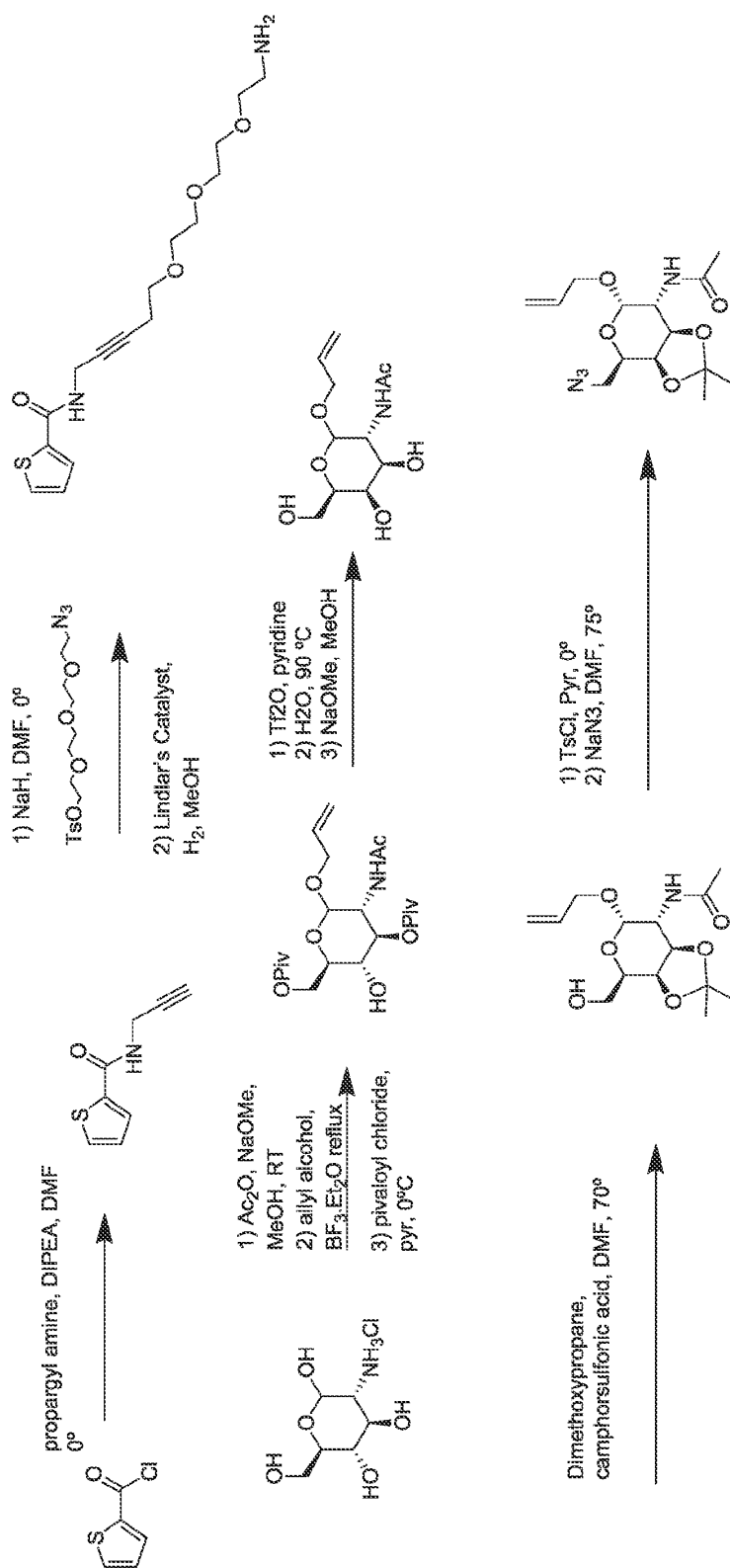


FIGURE 53 (Cont'd)

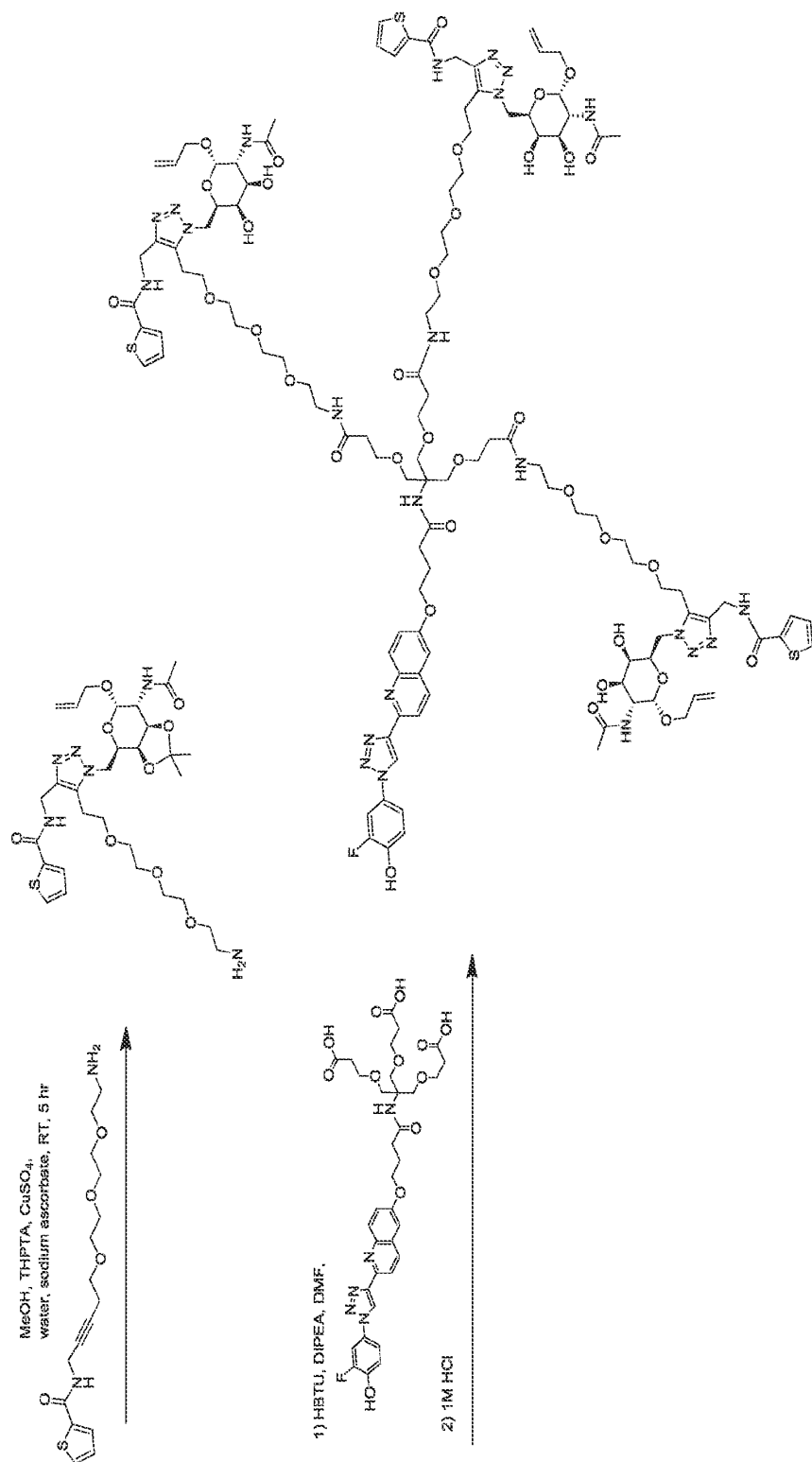


FIGURE 54

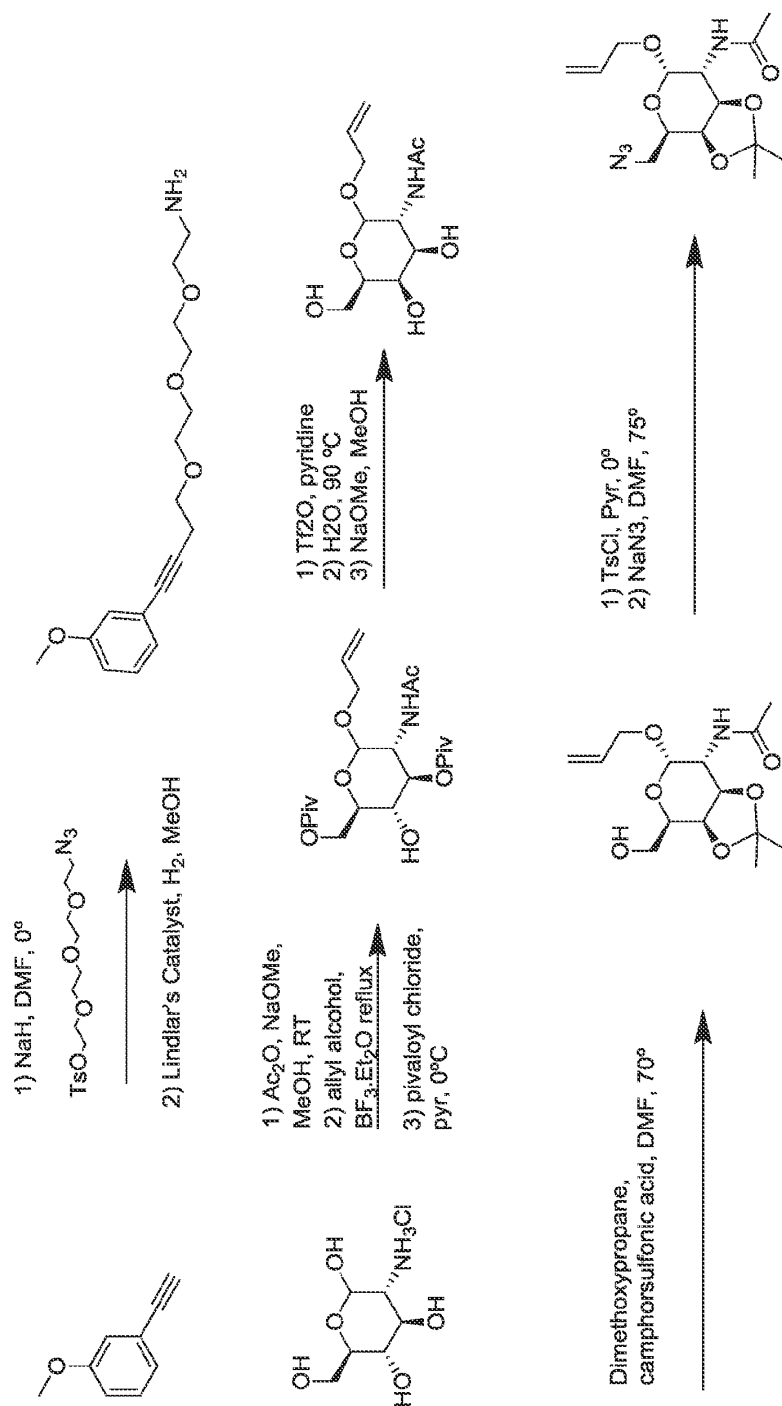


FIGURE S4 (Cont'd)

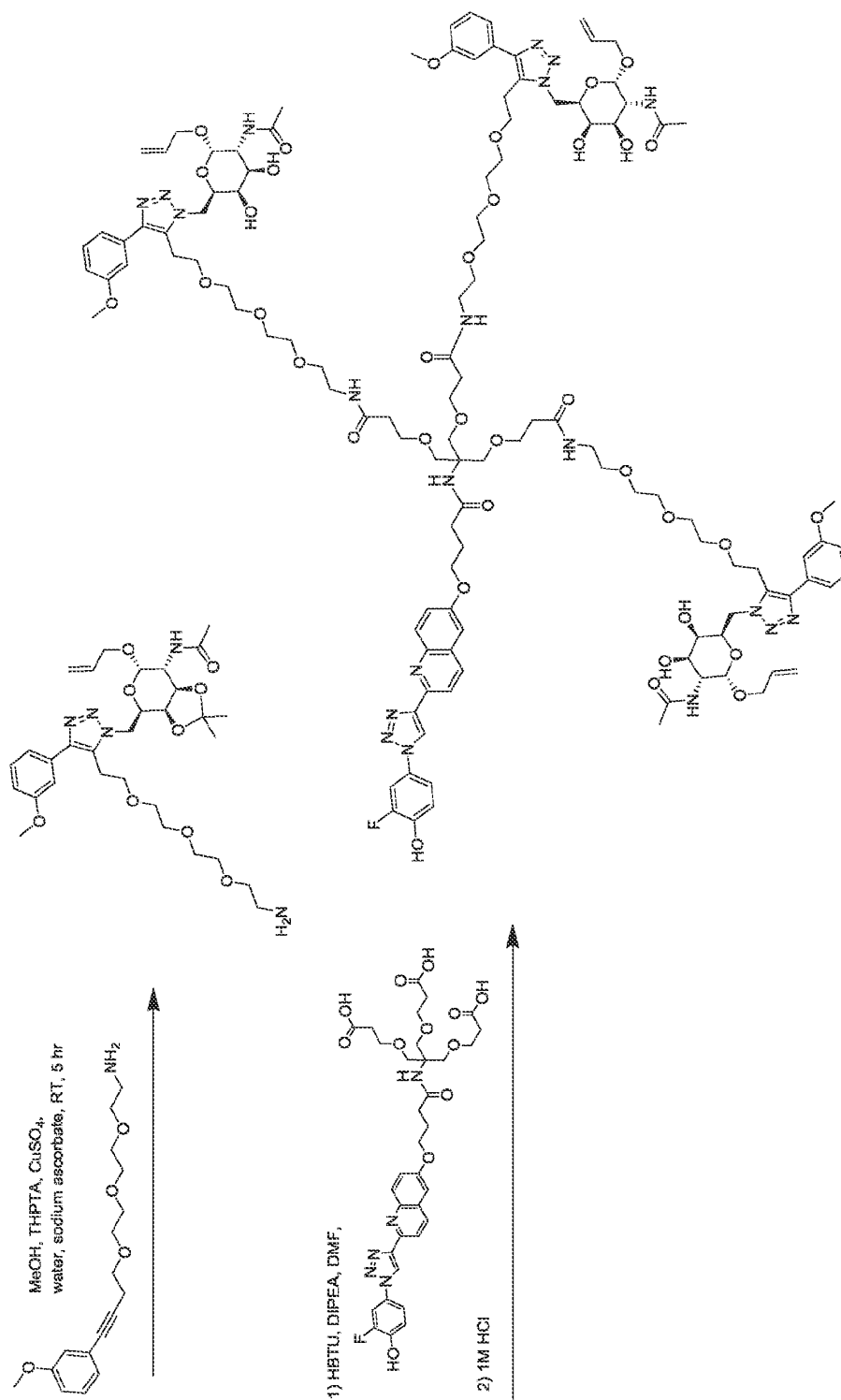


FIGURE 55

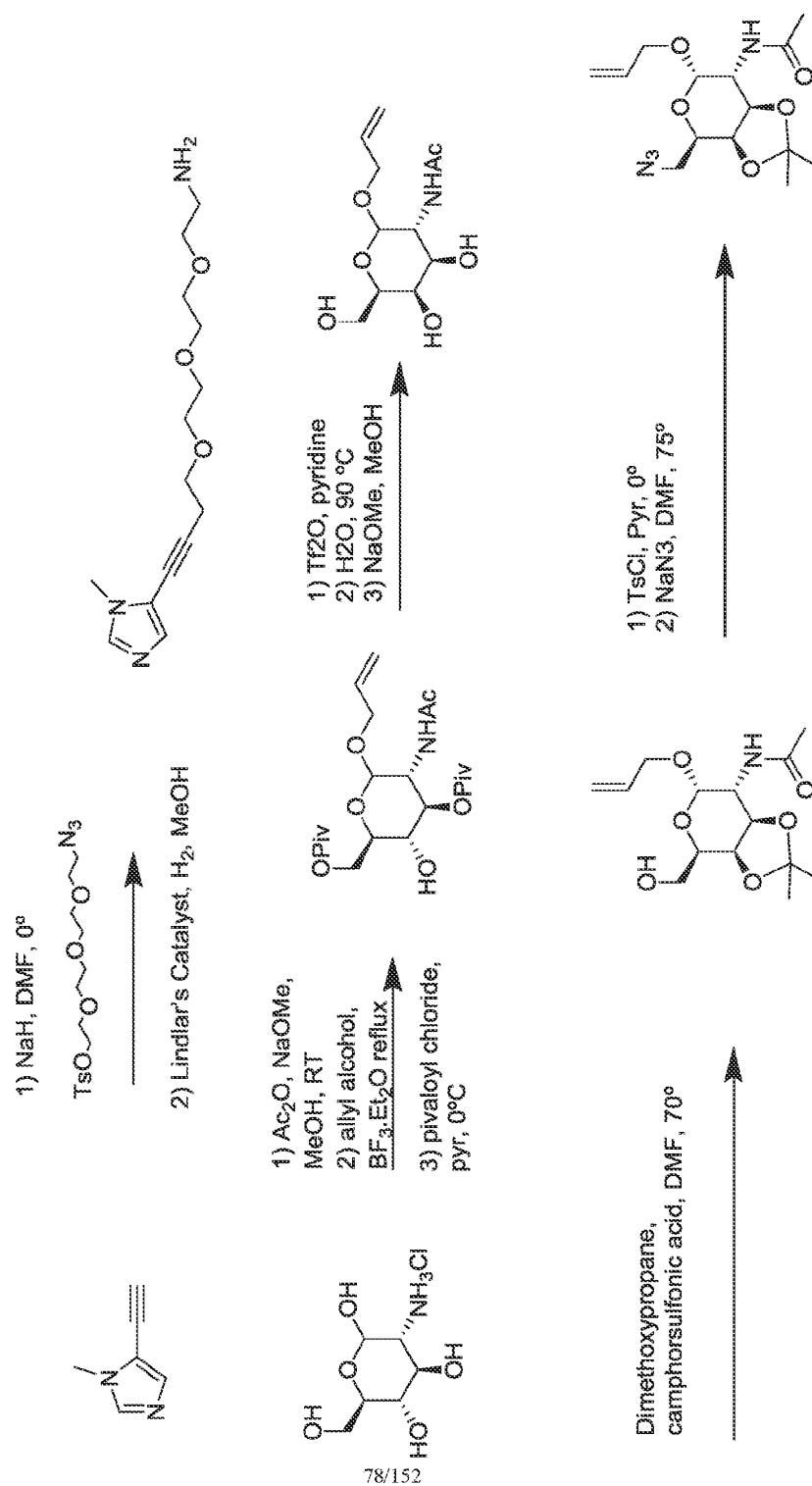


FIGURE 55 (Cont'd)

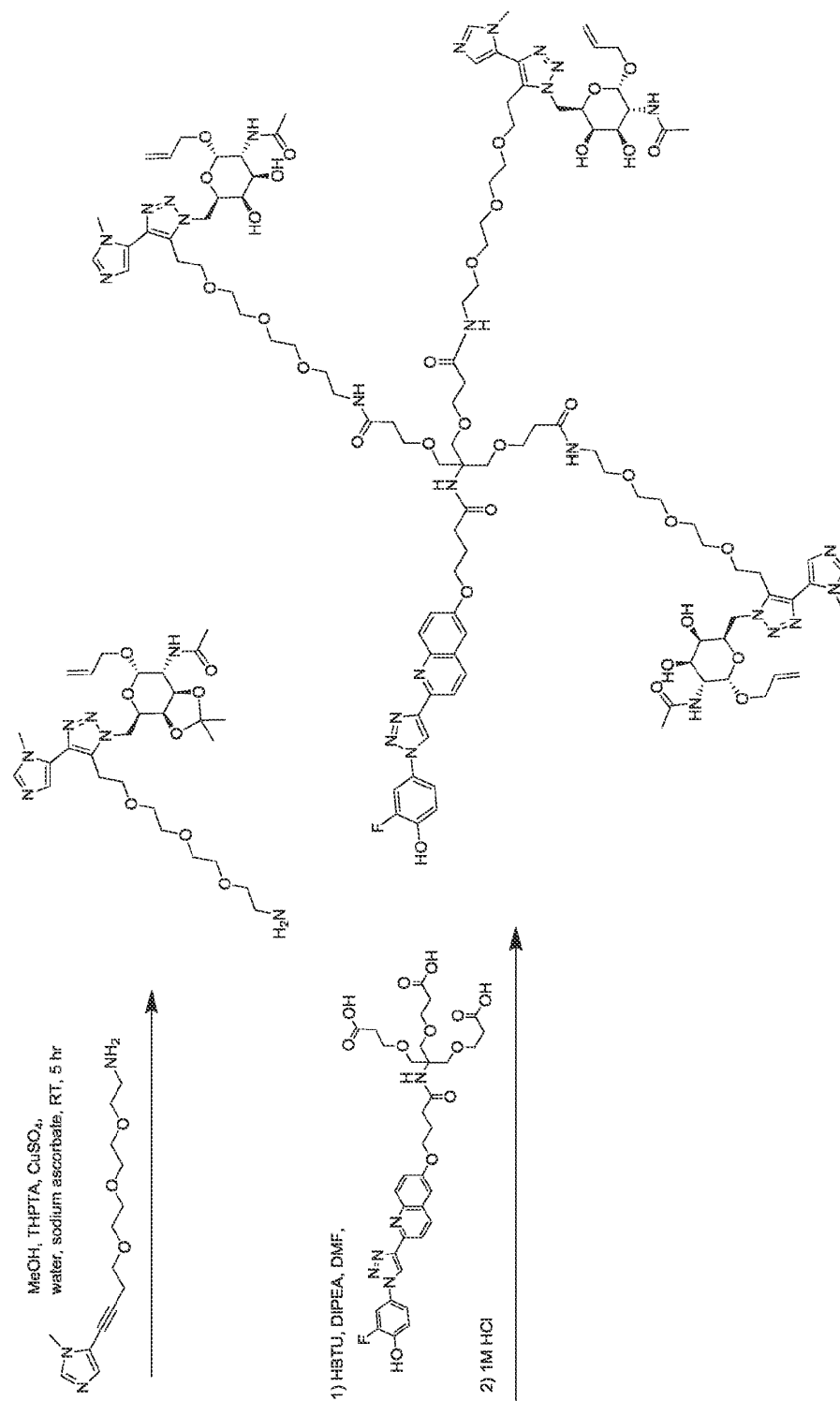


FIGURE 56 (Cont'd)

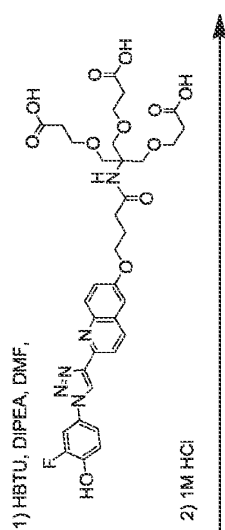
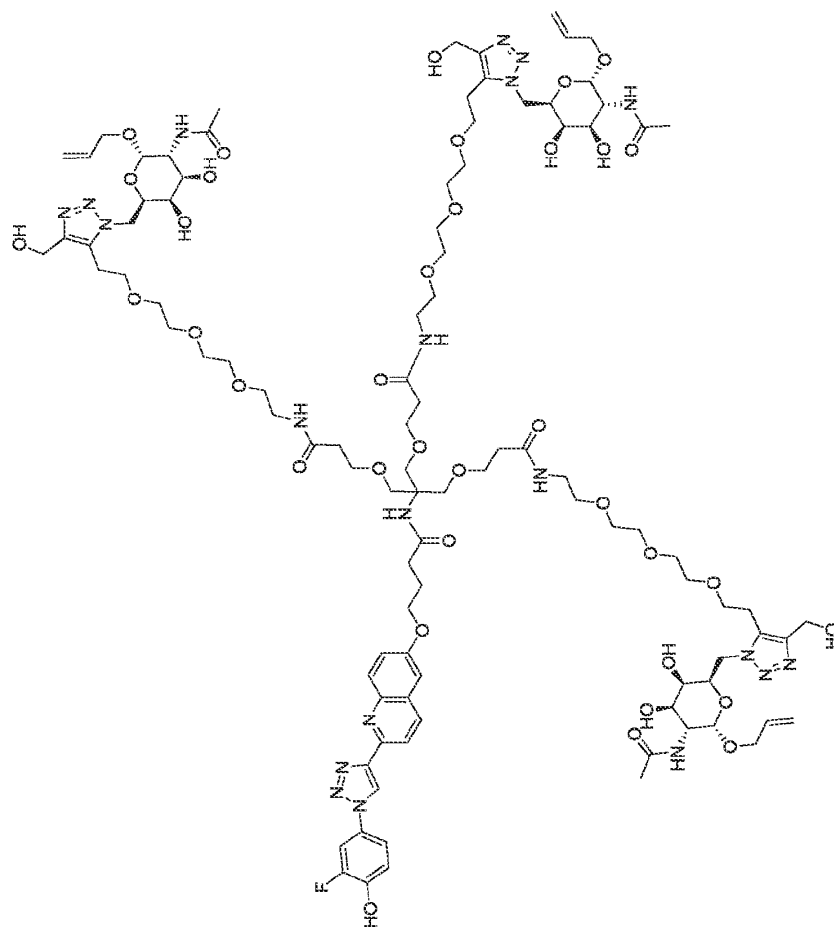


FIGURE 57

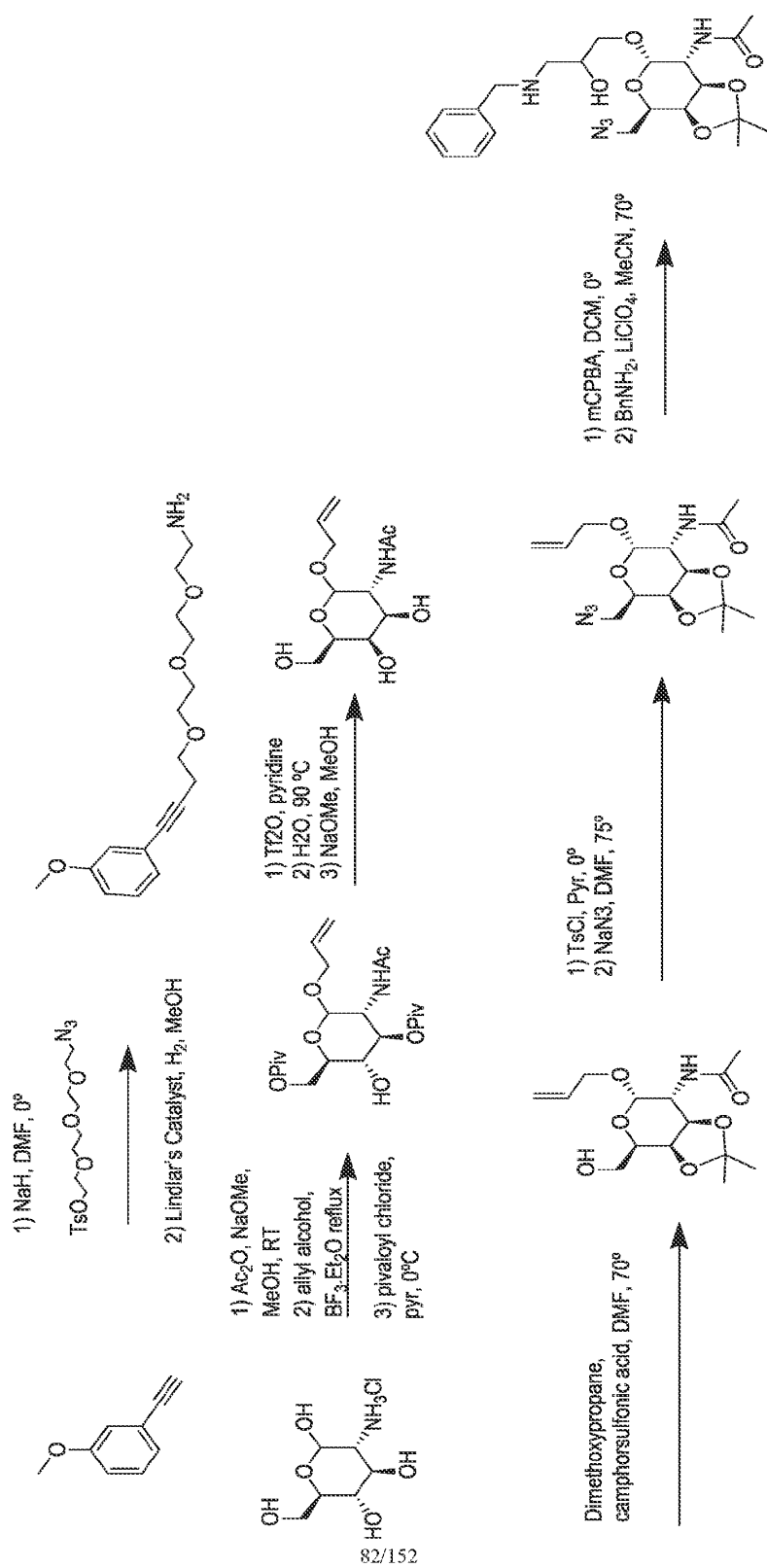


FIGURE S7 (Cont'd)

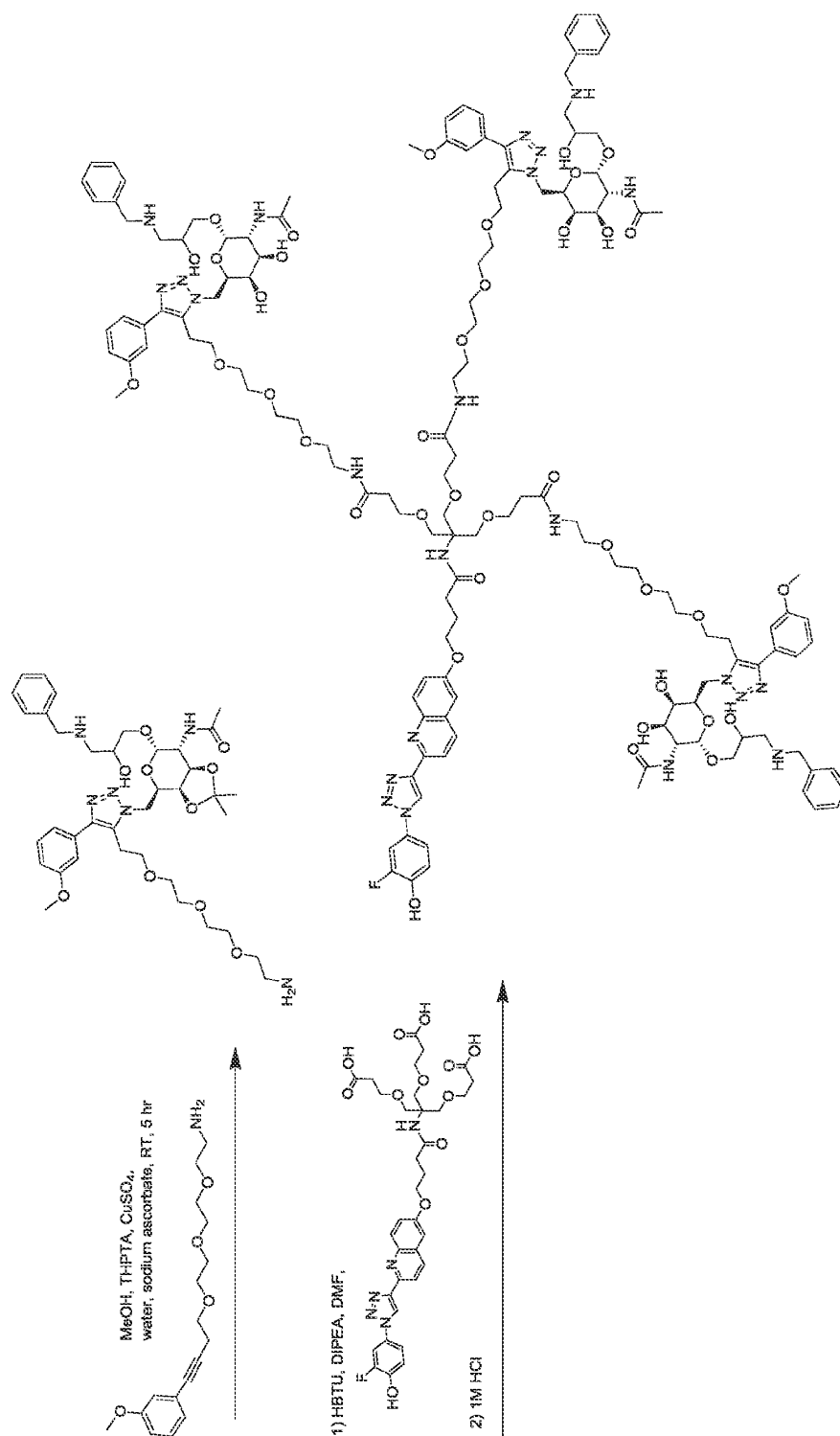


FIGURE 58

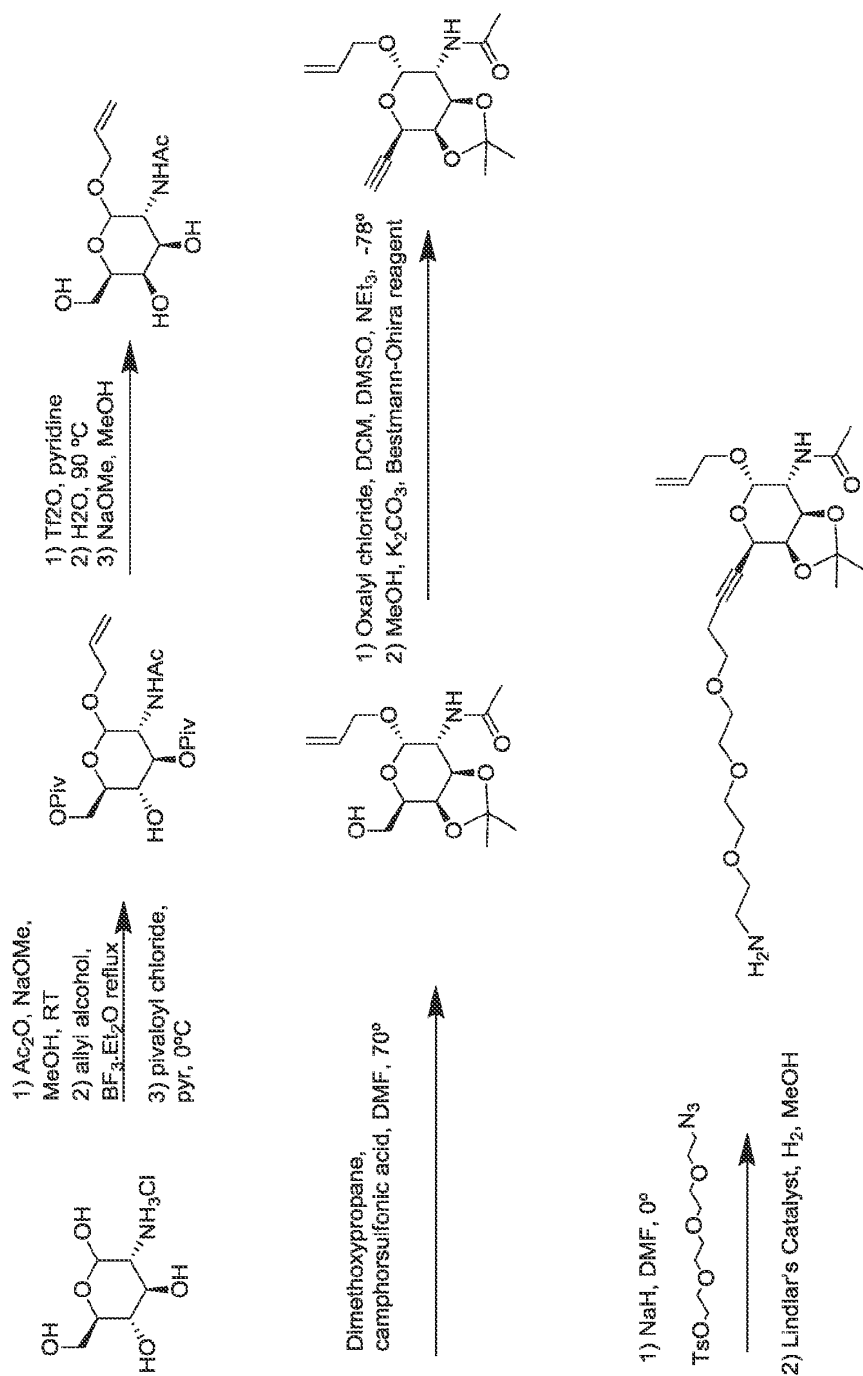


FIGURE 58 (Cont'd)

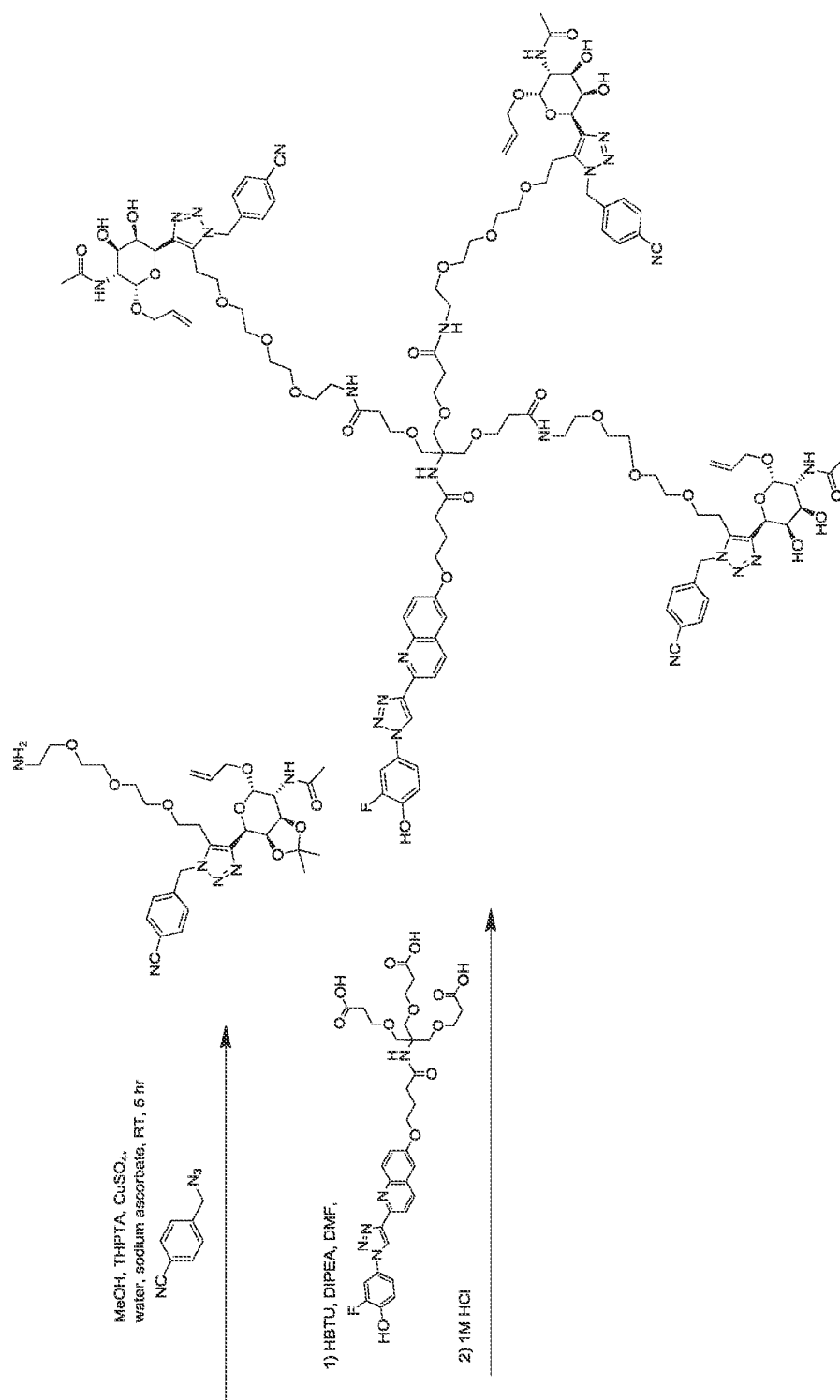


FIGURE 59

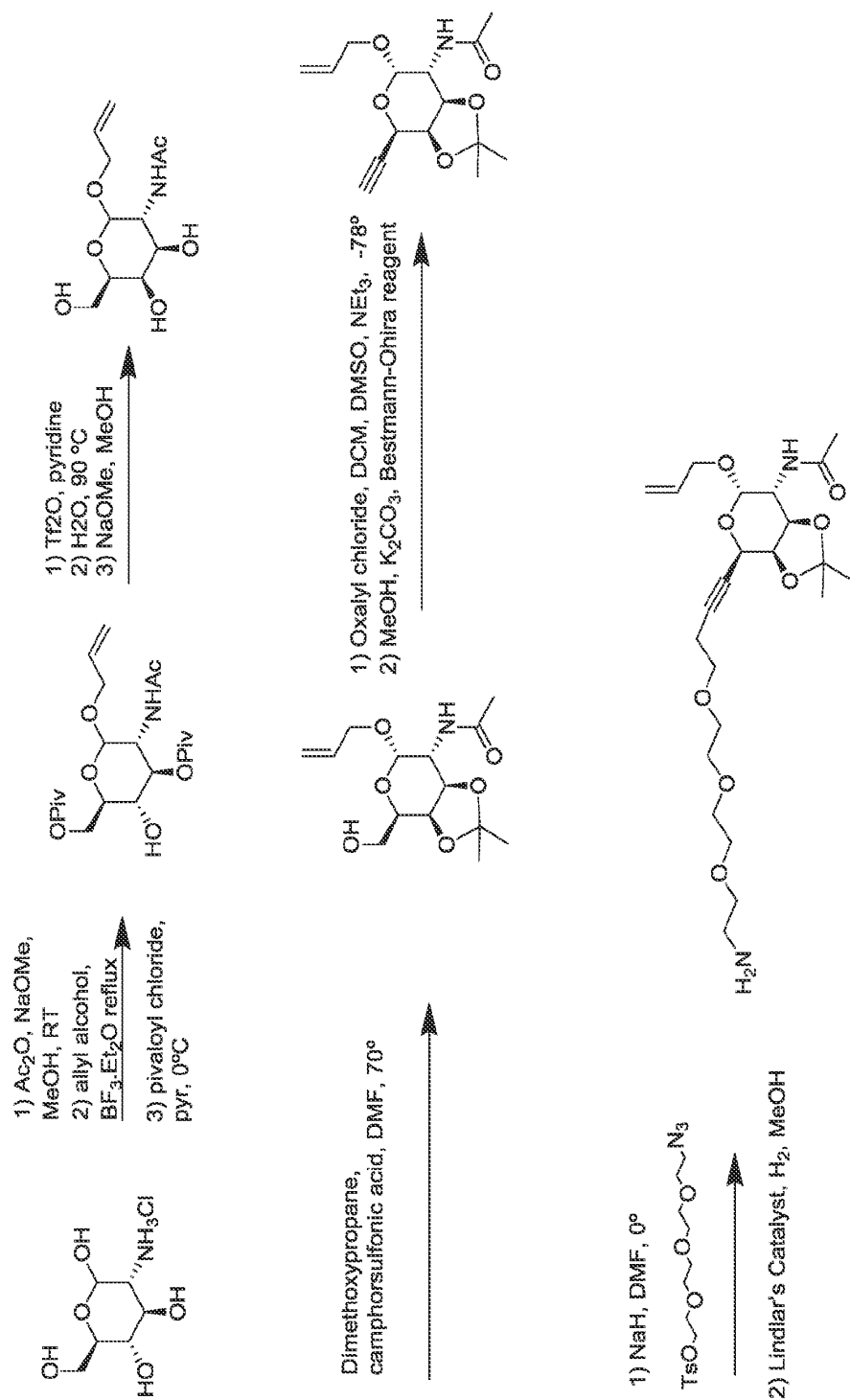


FIGURE S9 (Cont'd)

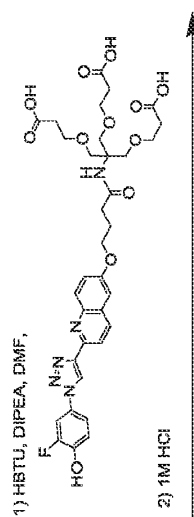
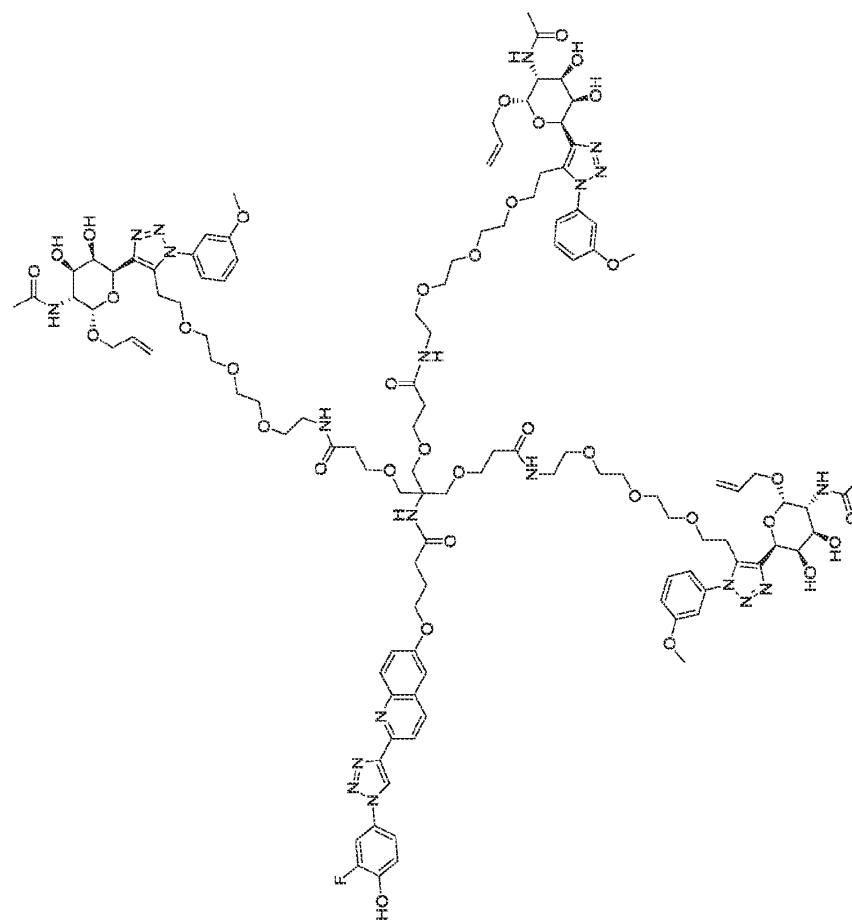


FIGURE 60

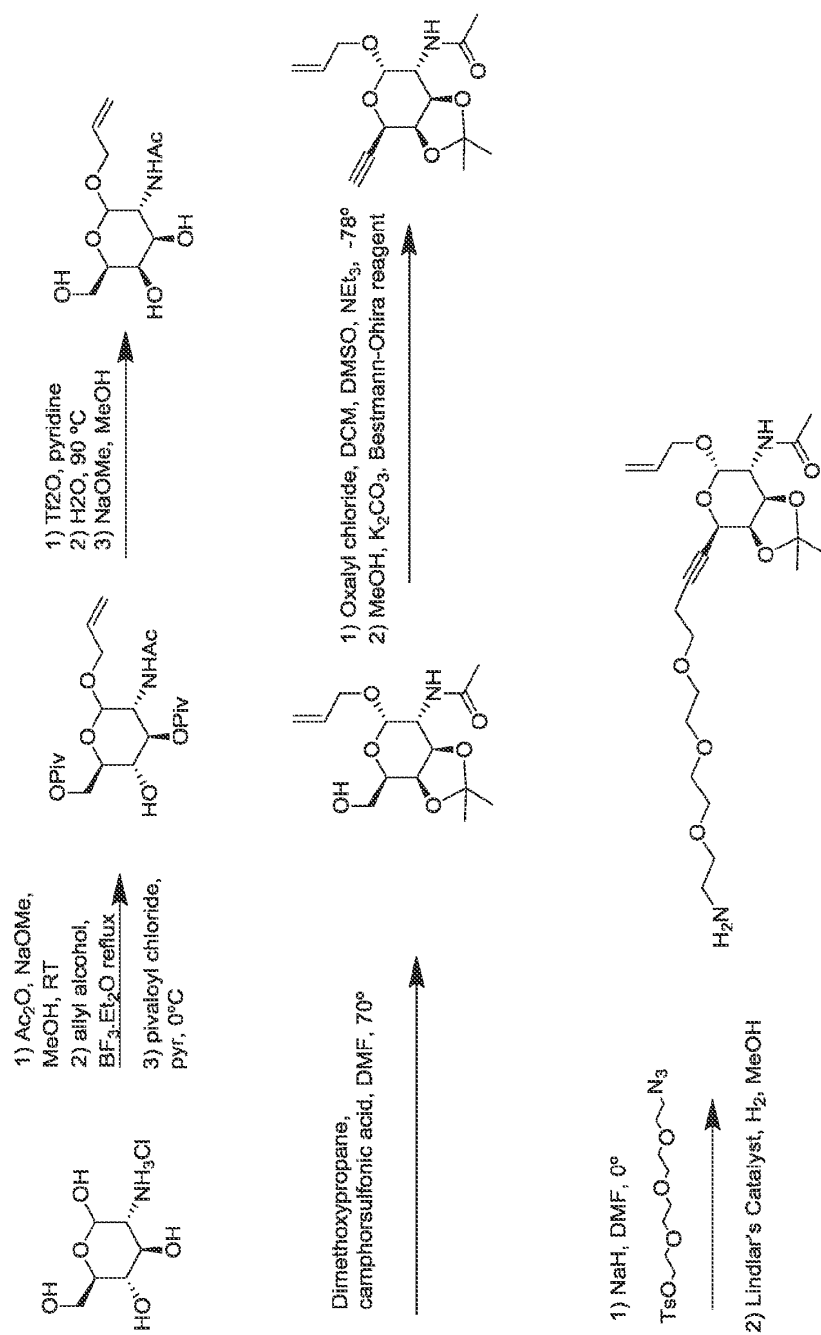


FIGURE 69 (Cont'd)

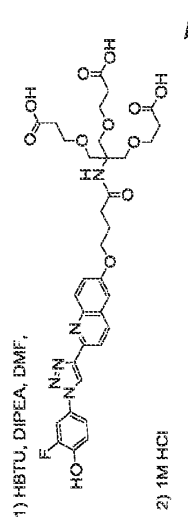
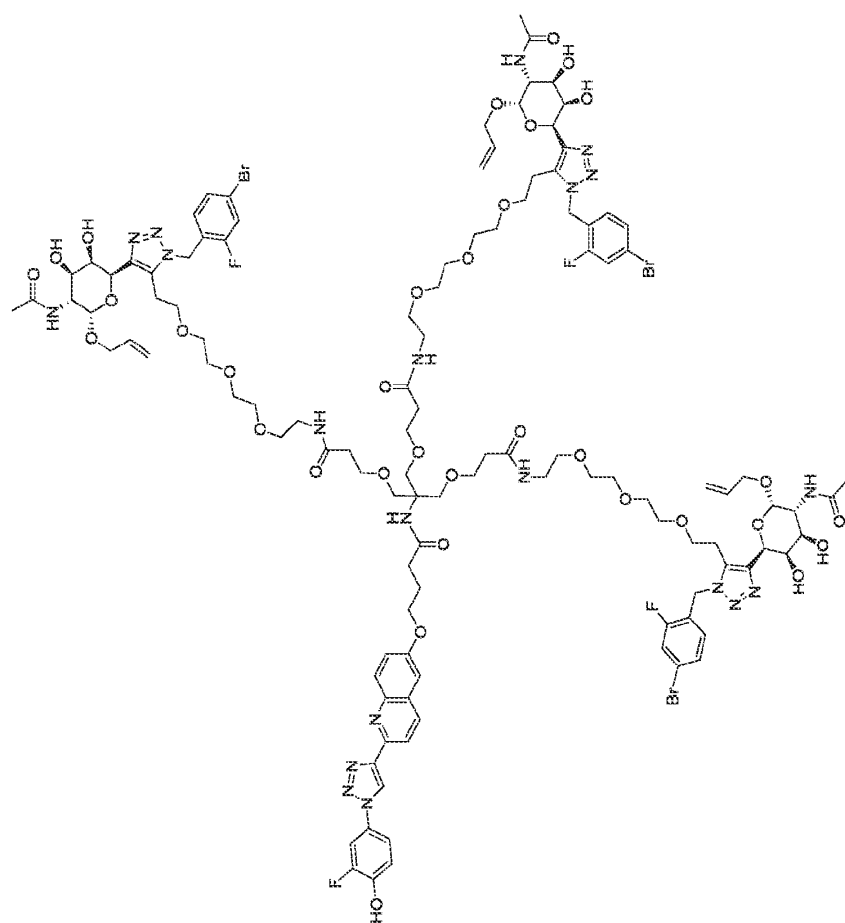


FIGURE 61

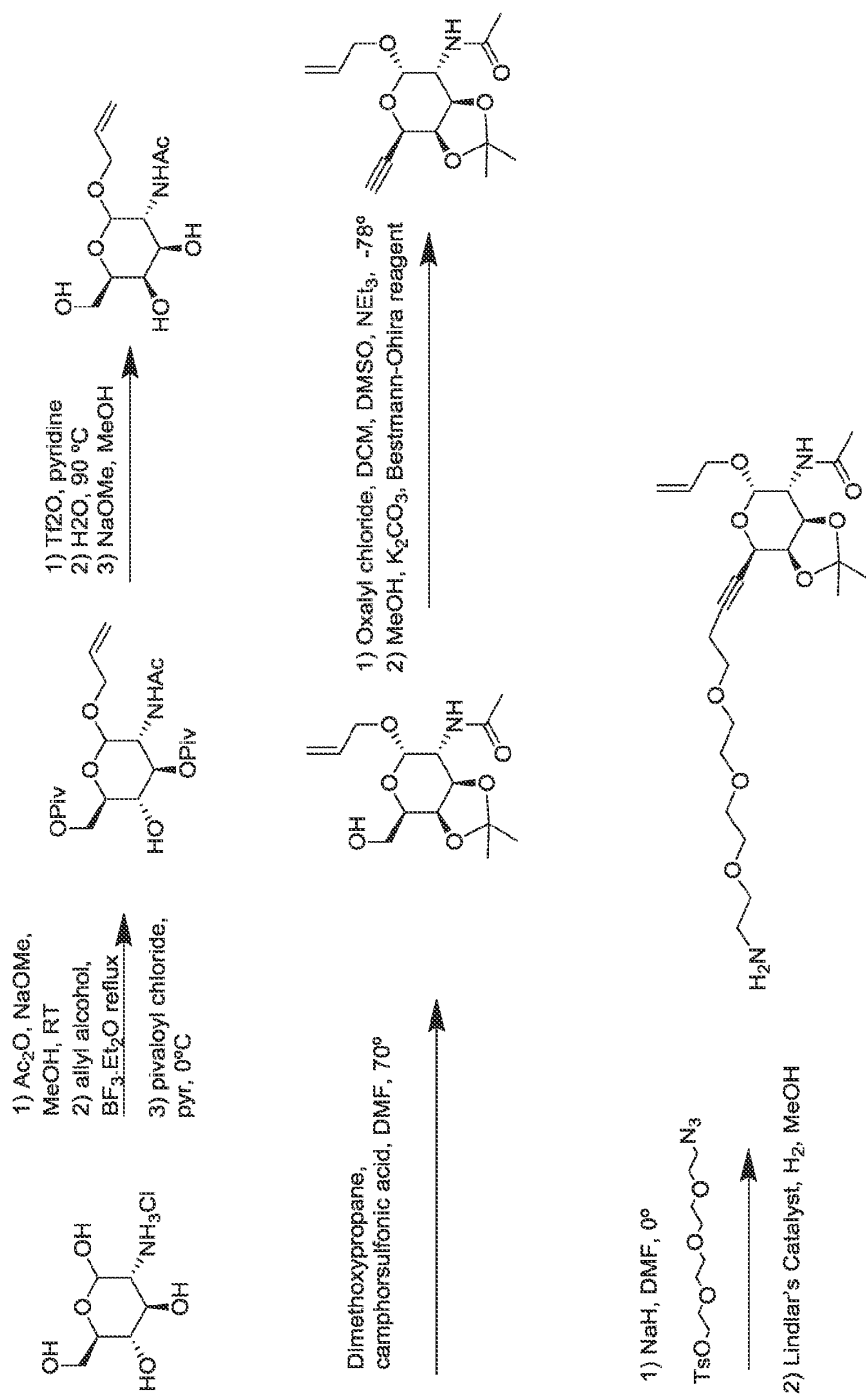


FIGURE 62

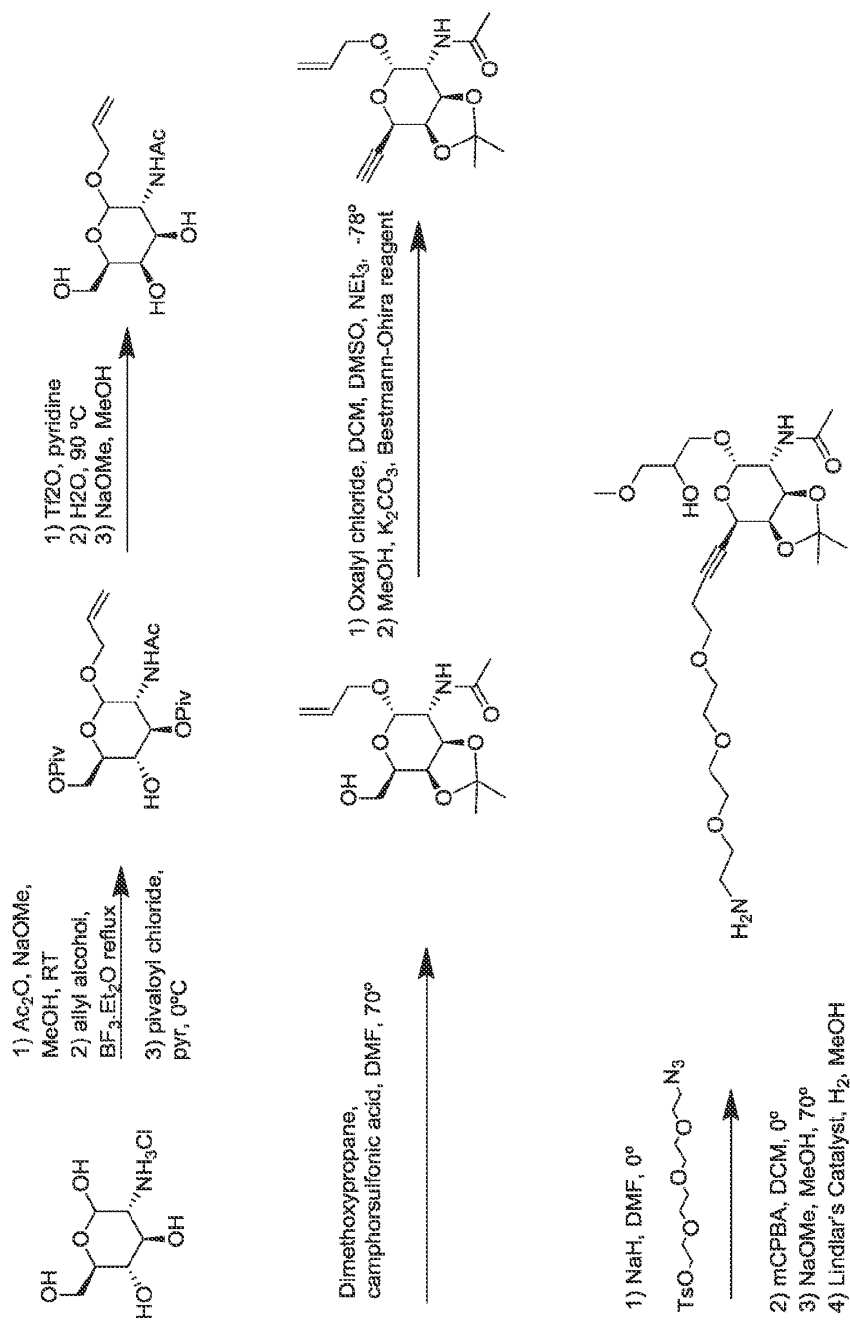


FIGURE 62 (Cont'd)

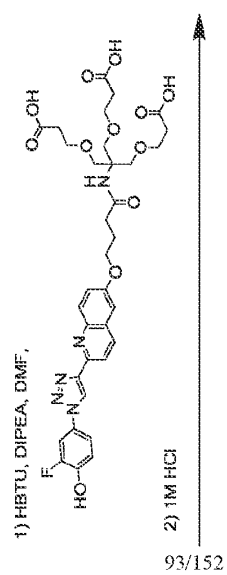
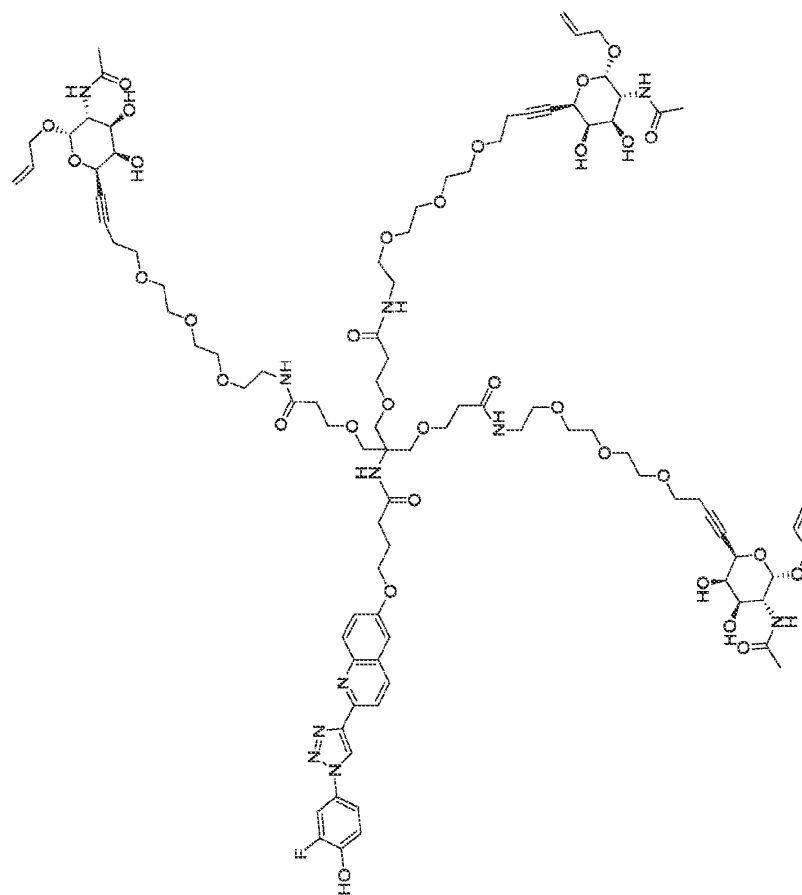


FIGURE 63

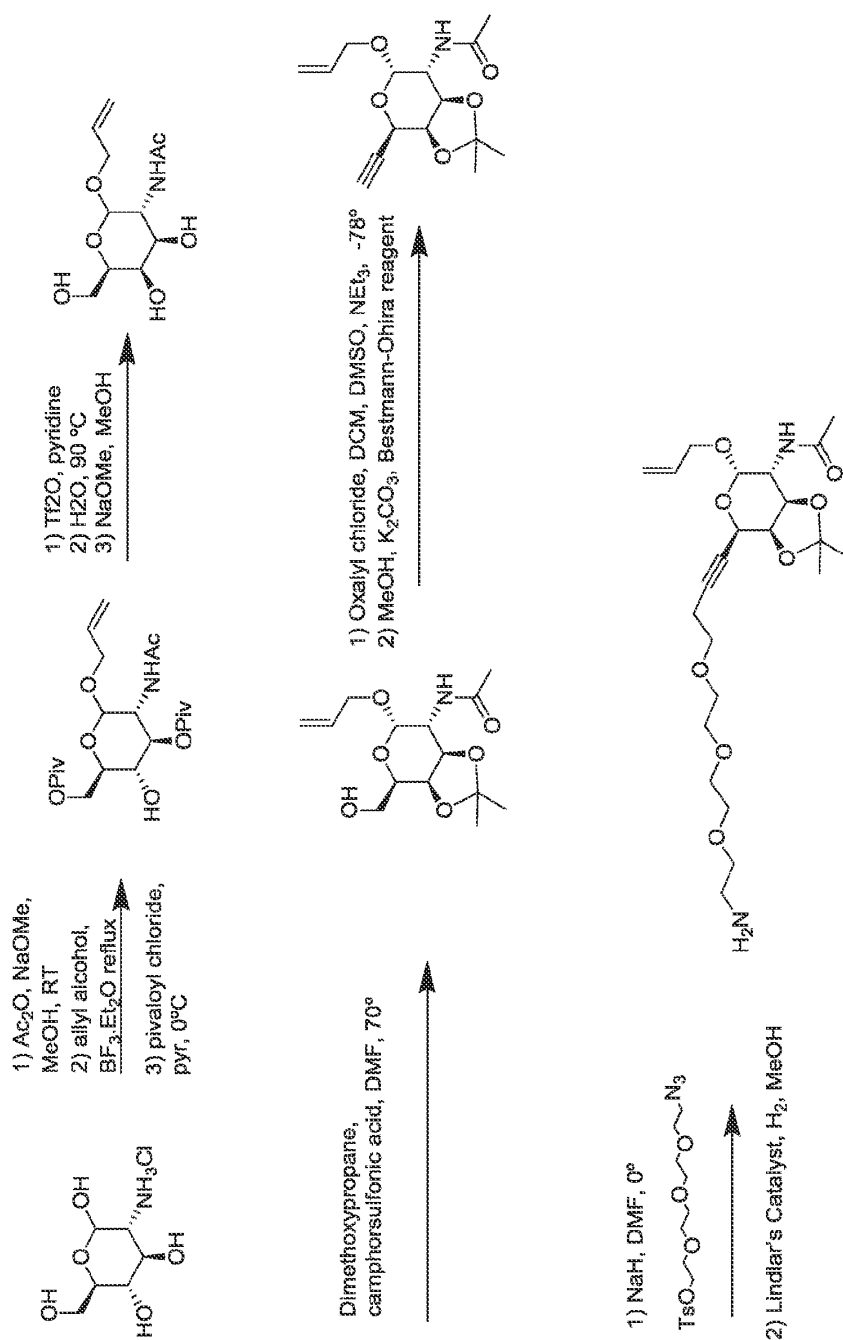


FIGURE 3 (Cont'd)

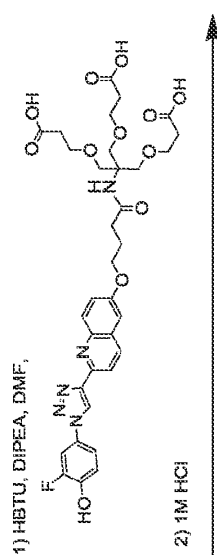
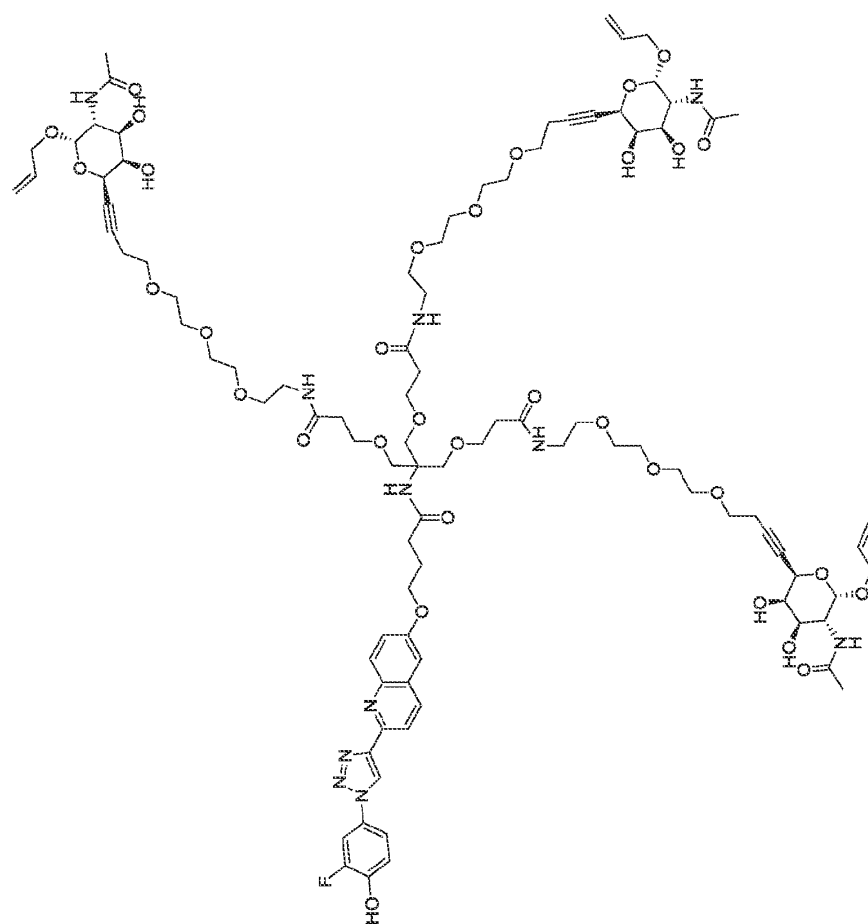


FIGURE 64

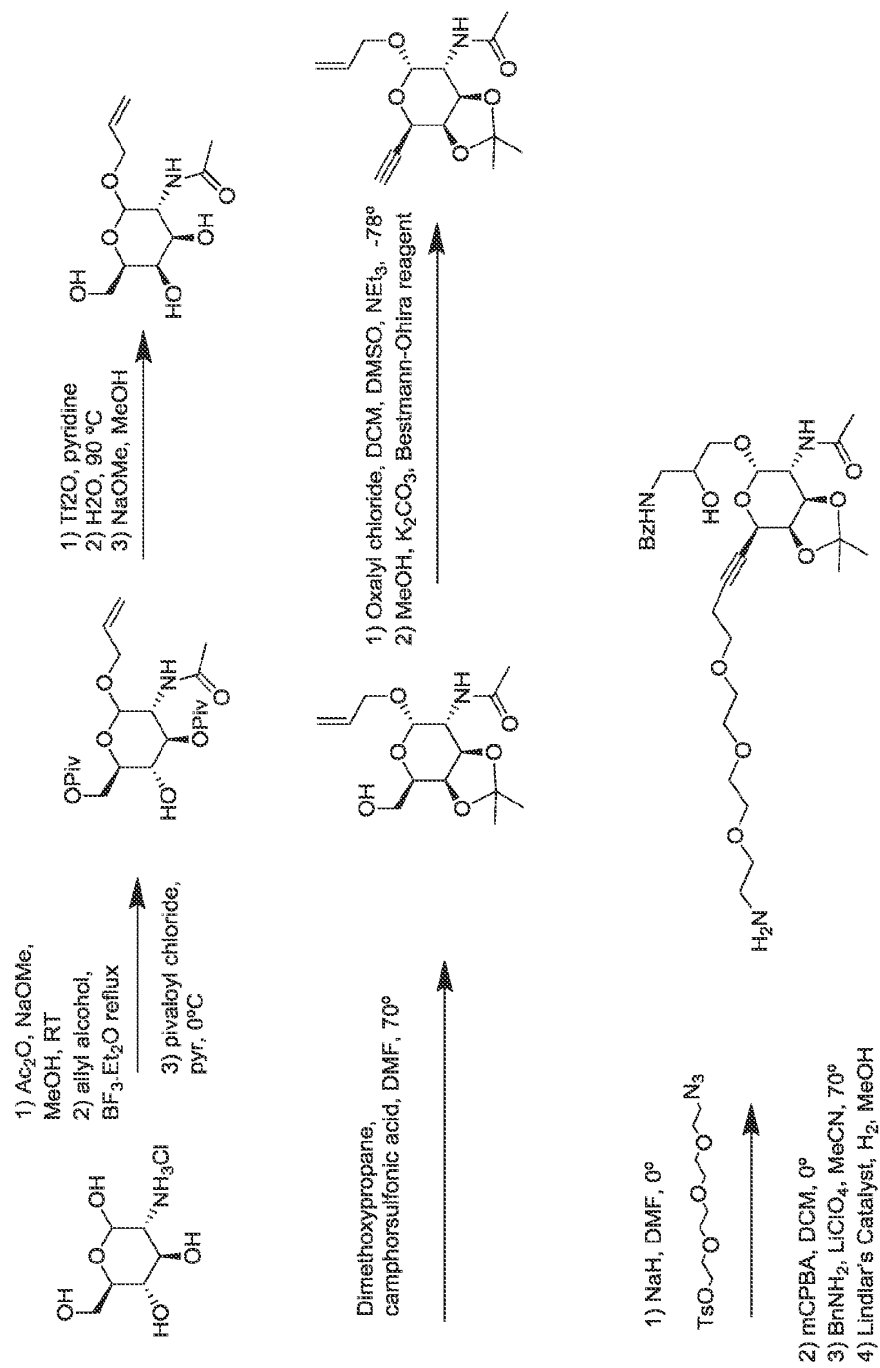


FIGURE 64 (Cont'd)

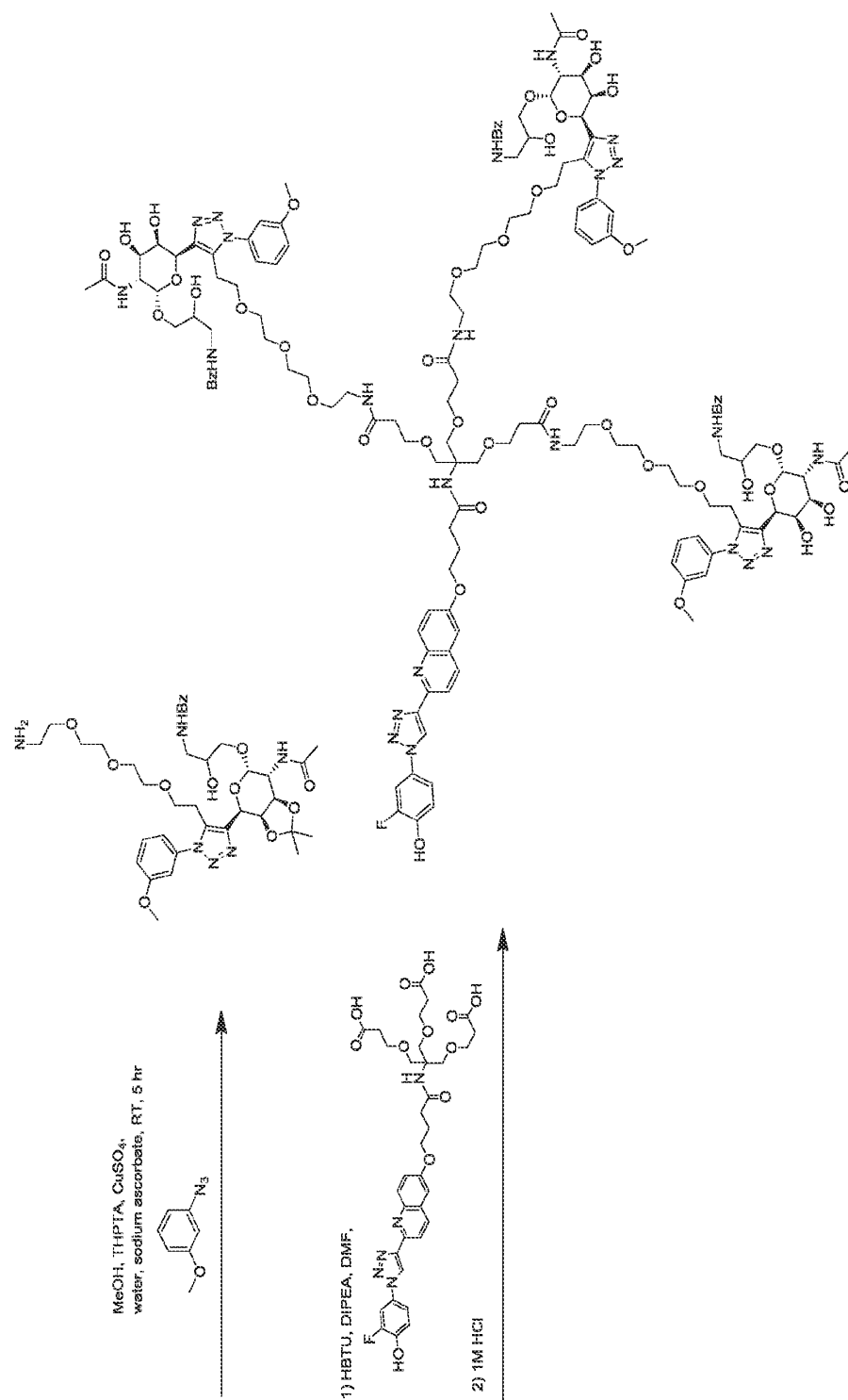


FIGURE 65

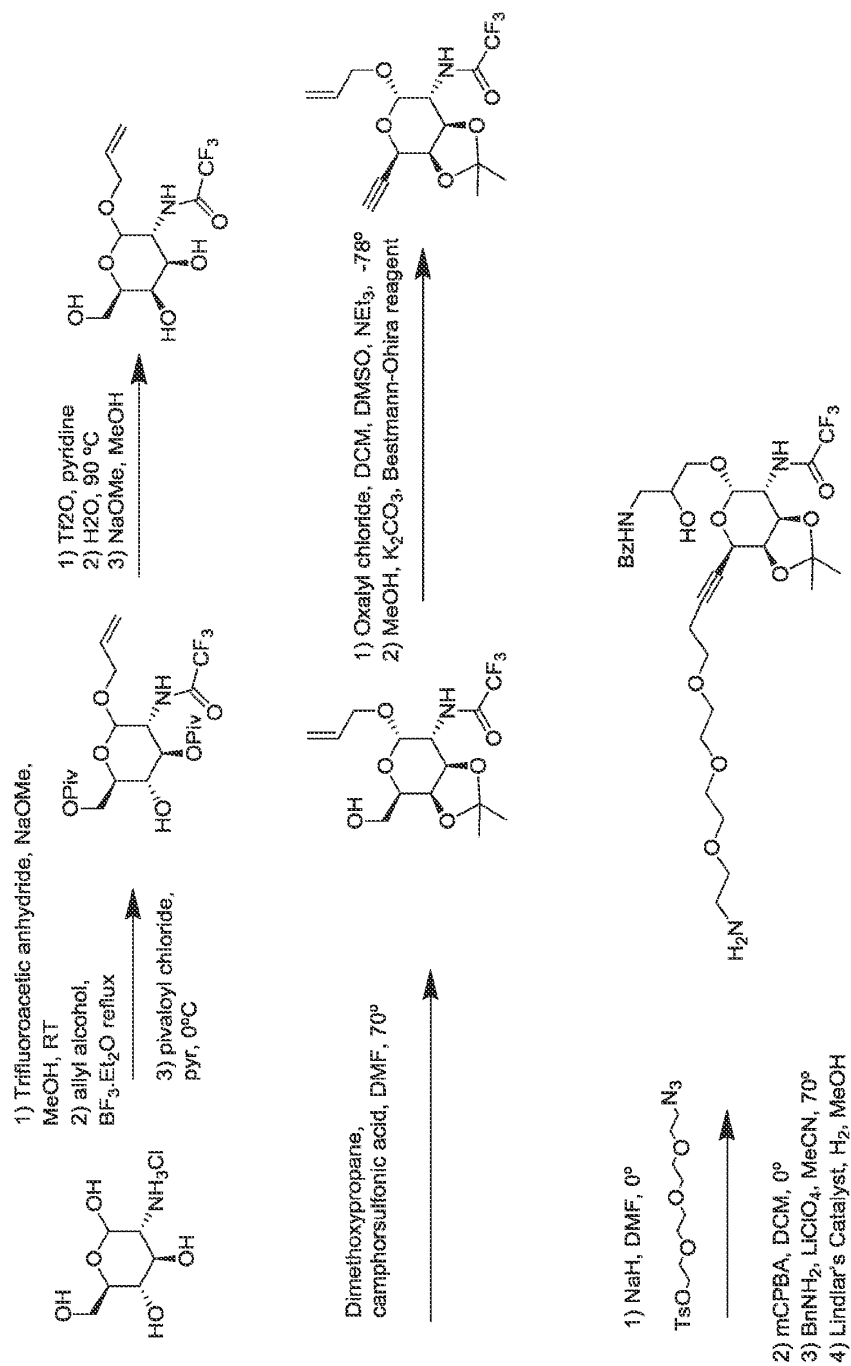
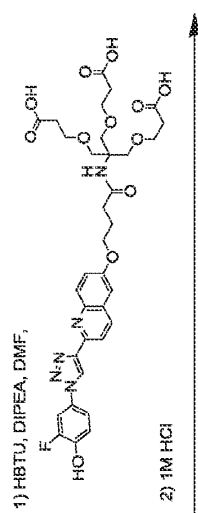
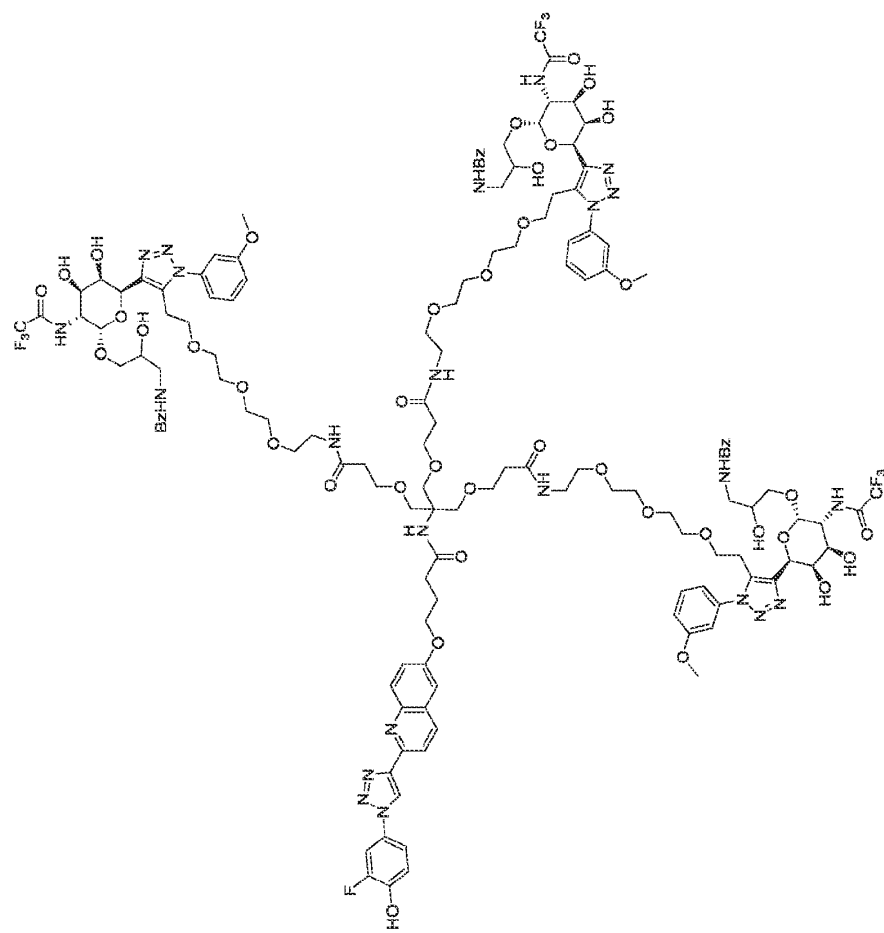


FIGURE 65 (Cont'd)



1) HBTU, DIPEA, DMF,

2) 1M HCl

FIGURE 67

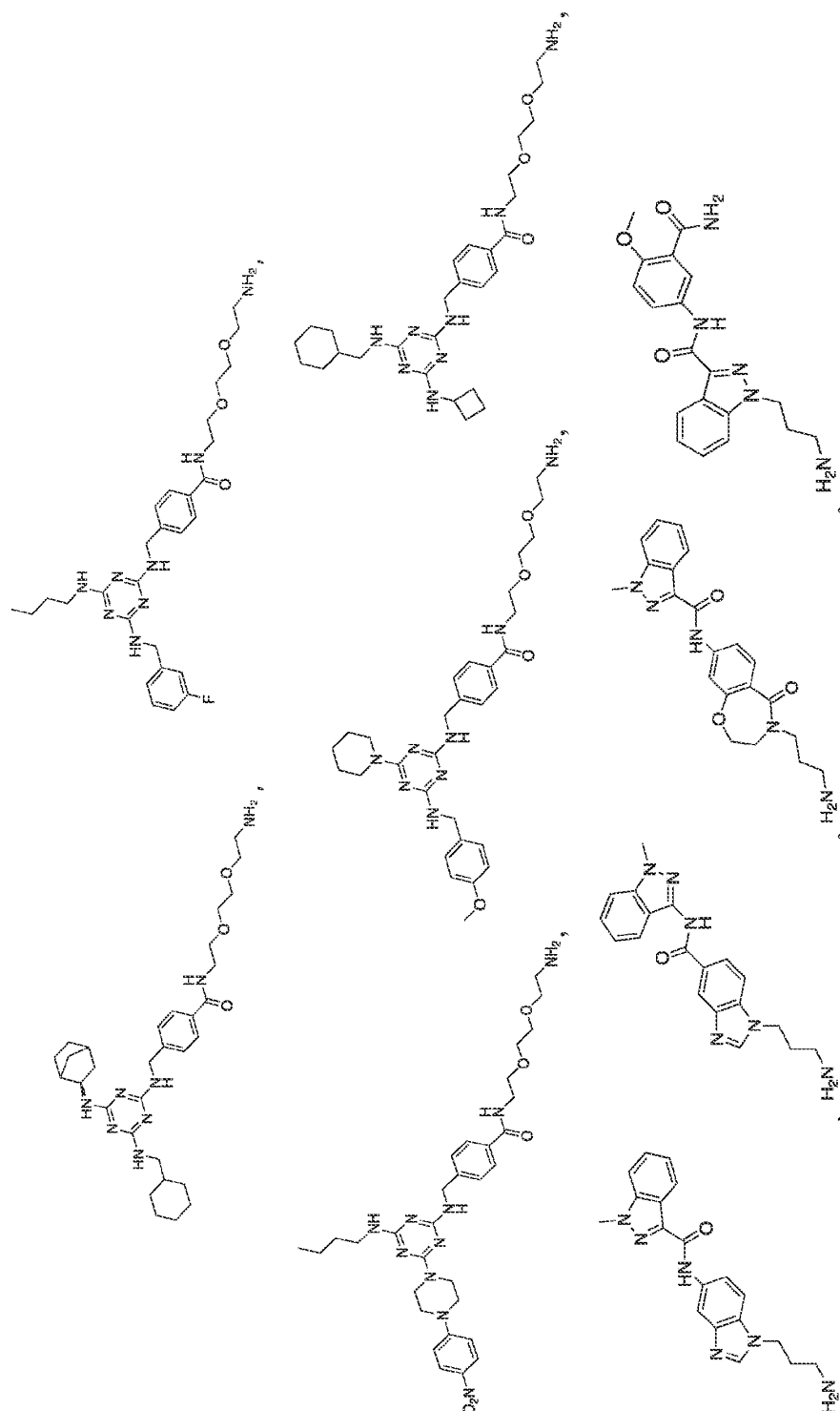


FIGURE 67 (Cont'd)

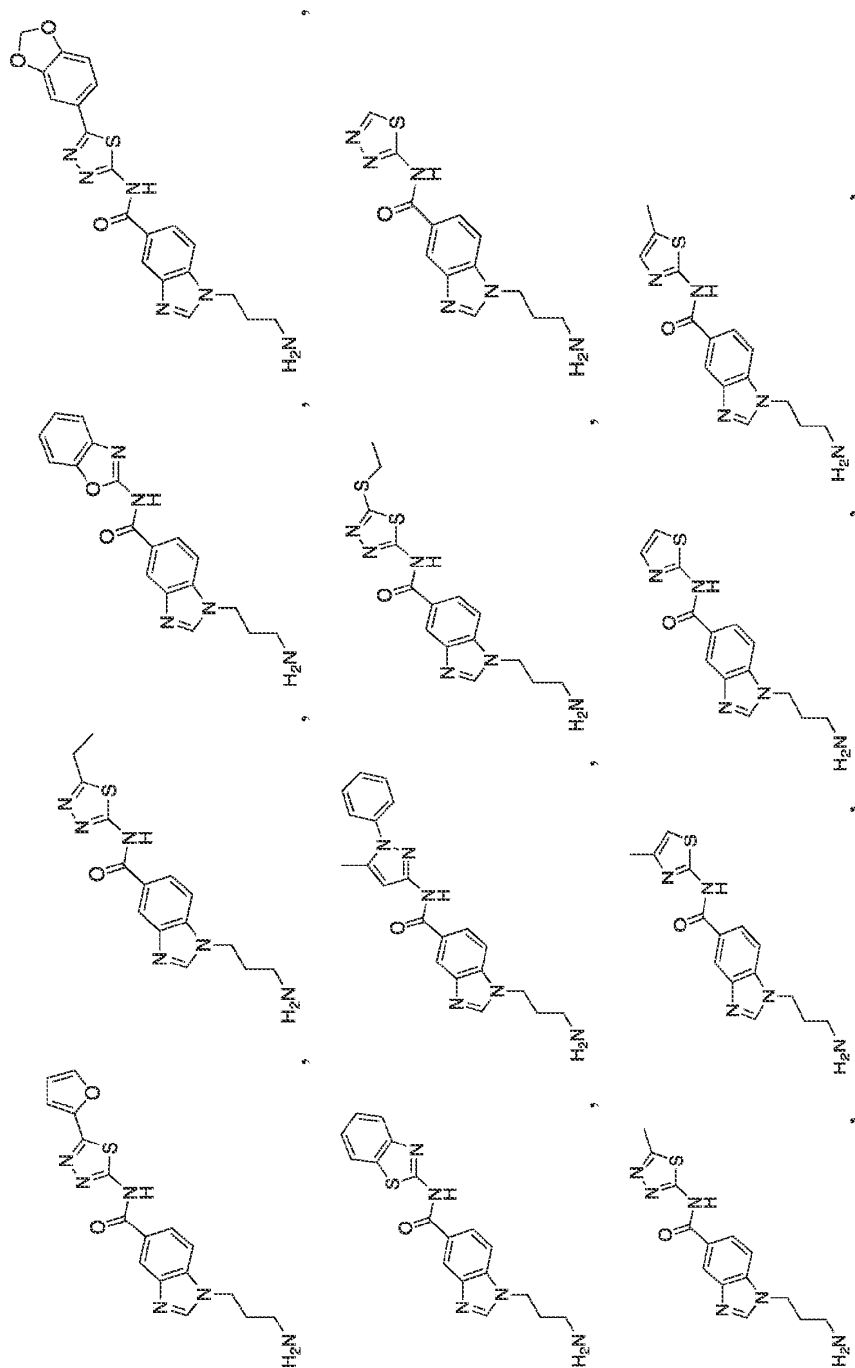


FIGURE 67 (Cont'd)

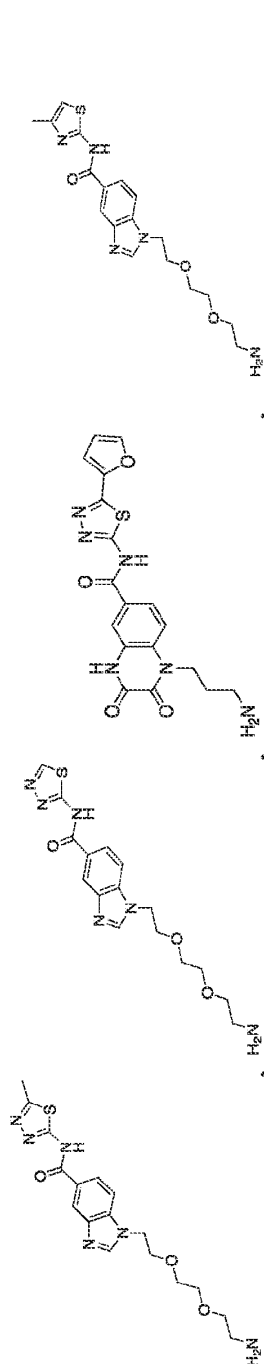
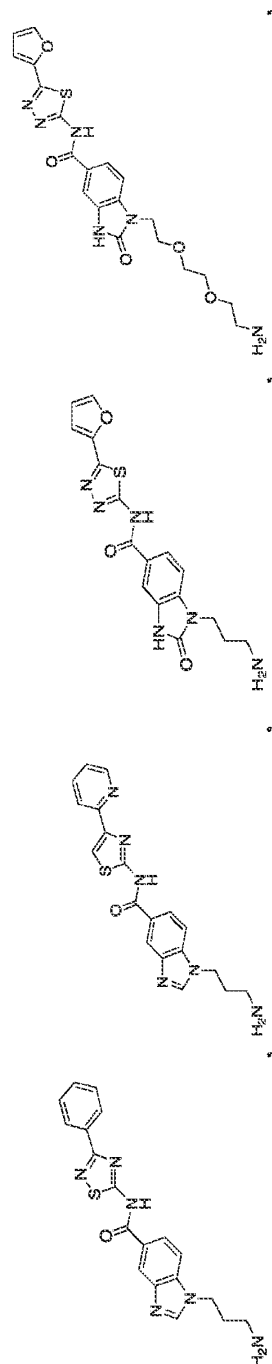
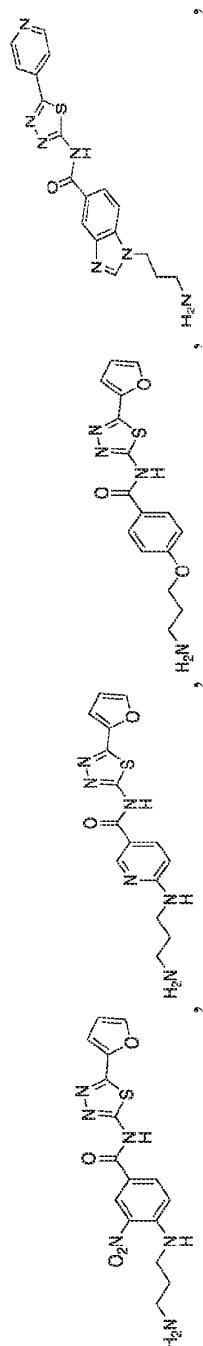


FIGURE 67 (Cont'd)

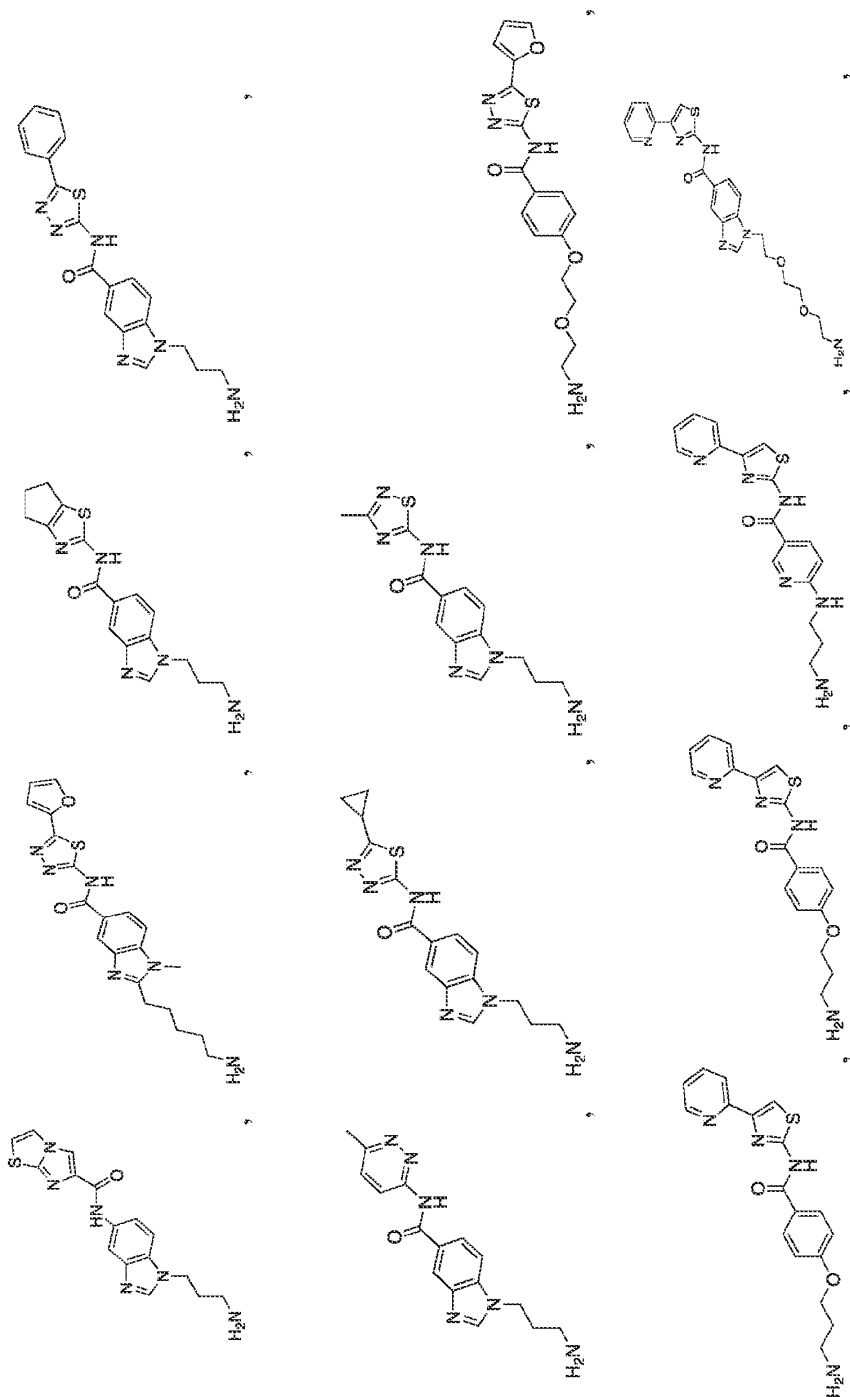


FIGURE 67 (Cont'd)

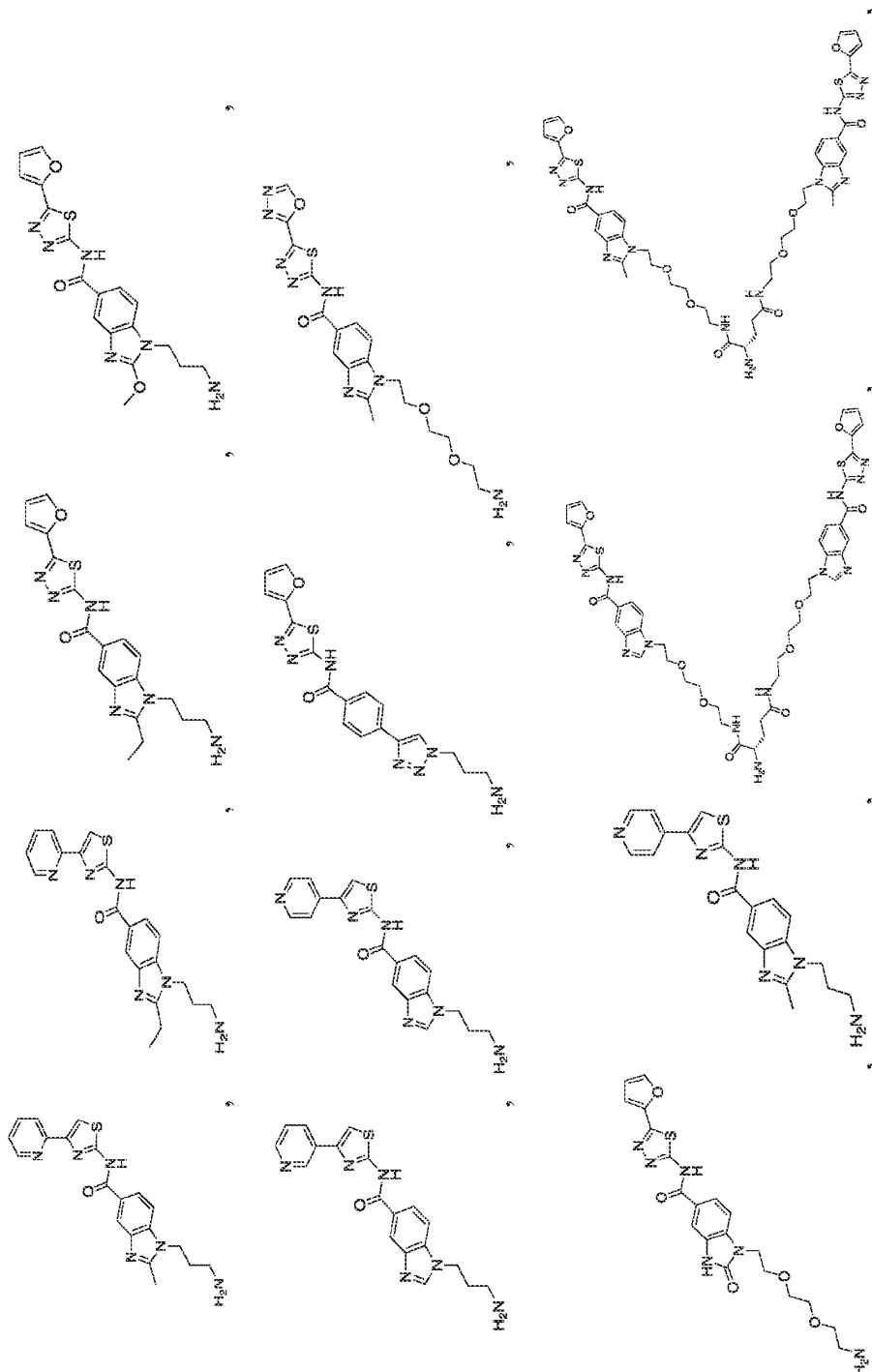


FIGURE 67 (Cont'd)

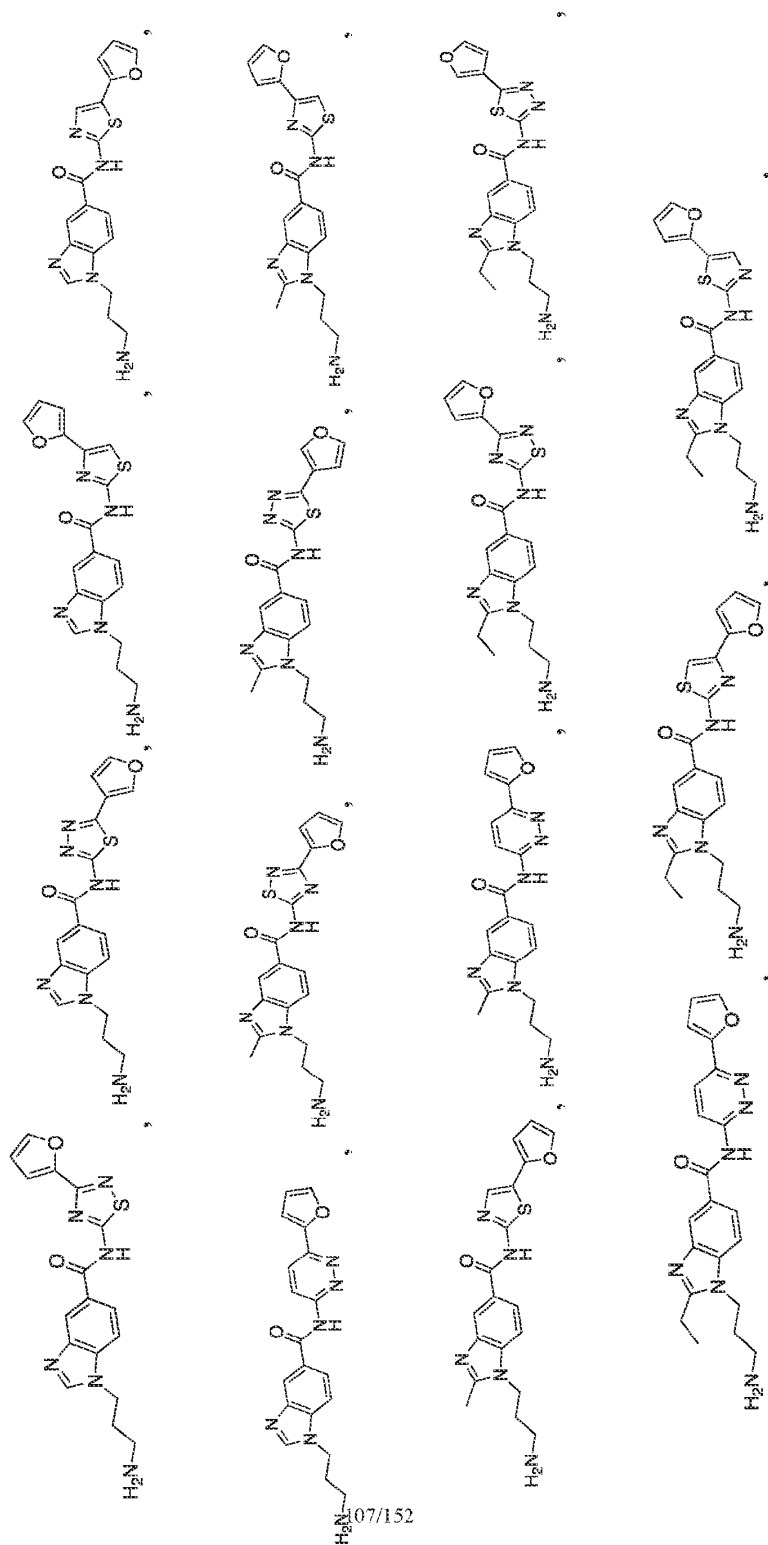


FIGURE 67 (Cont'd)

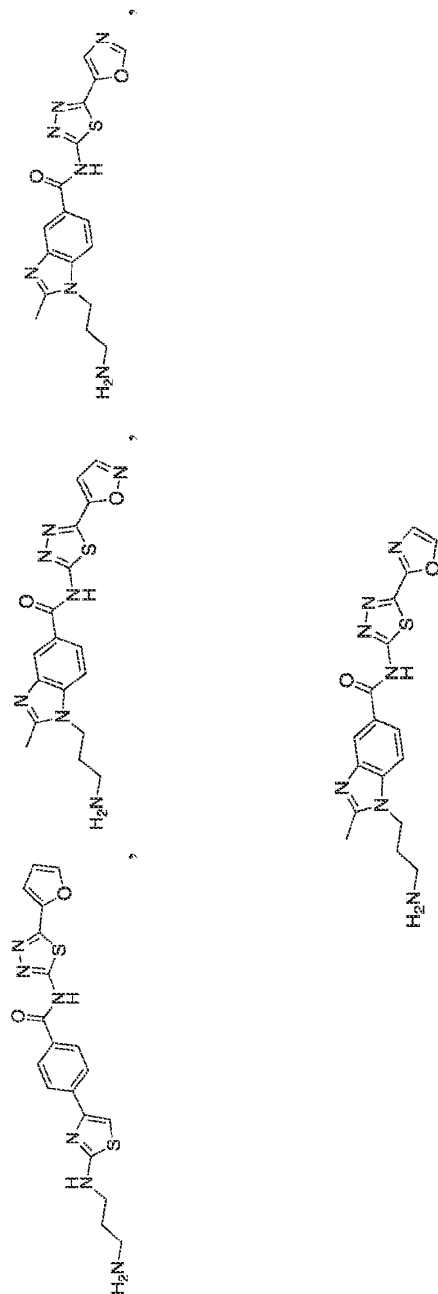


FIGURE 68

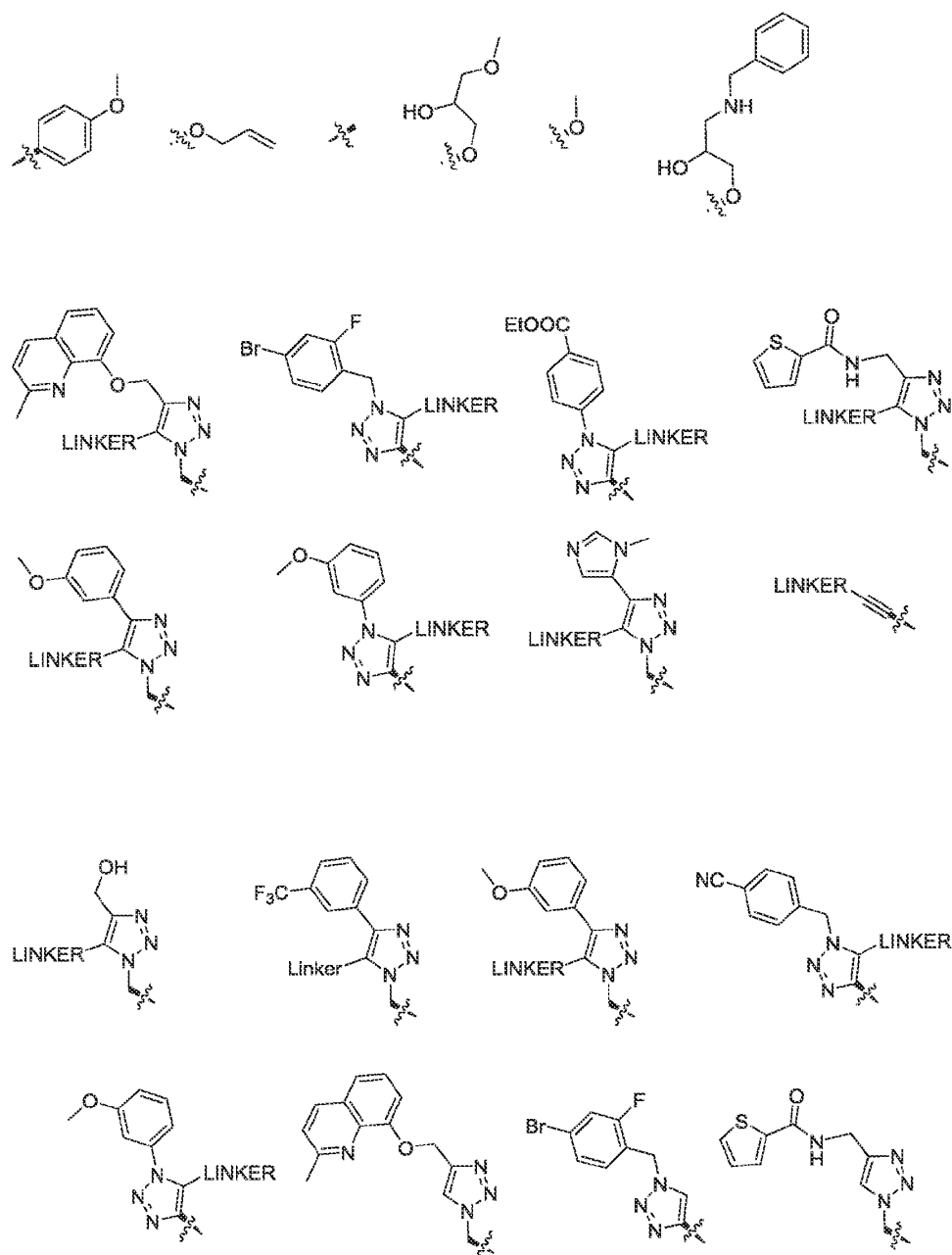
Exemplary R_1 and R_3 substituents/moieties for the [ASGPRBM] group

FIGURE 68 (Cont'd)

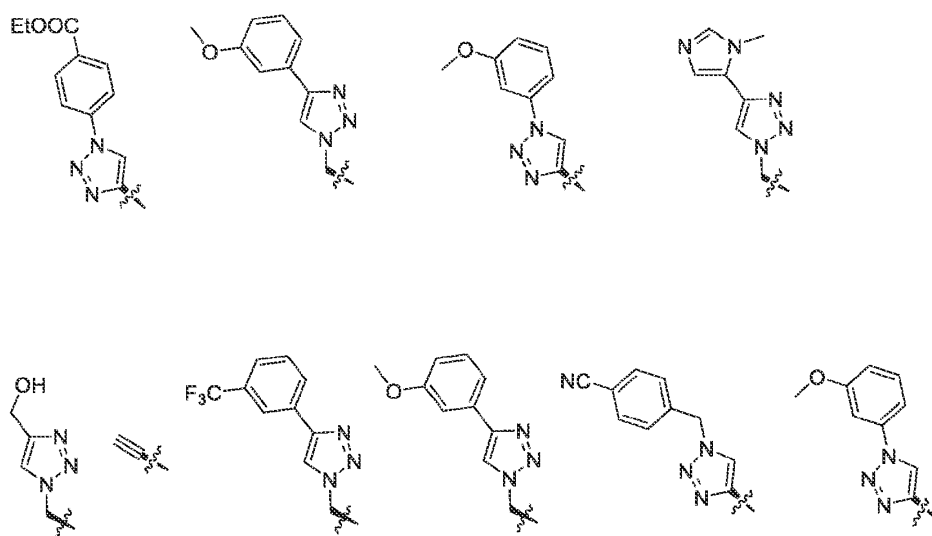
Exemplary R₁ and R₃ substituents/moieties for the [ASGPRBM] group

FIGURE 69

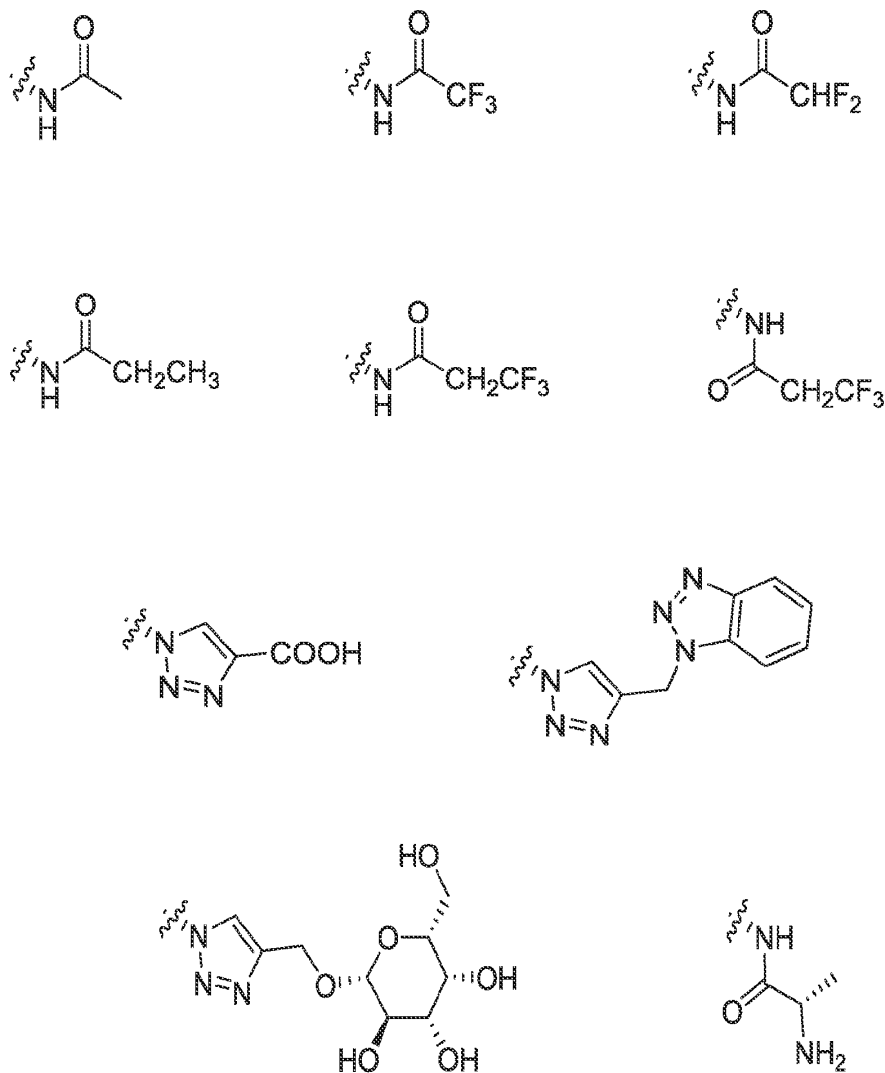
Exemplary R₂ substituents/moieties for the [ASGPRBM] group

FIGURE 70

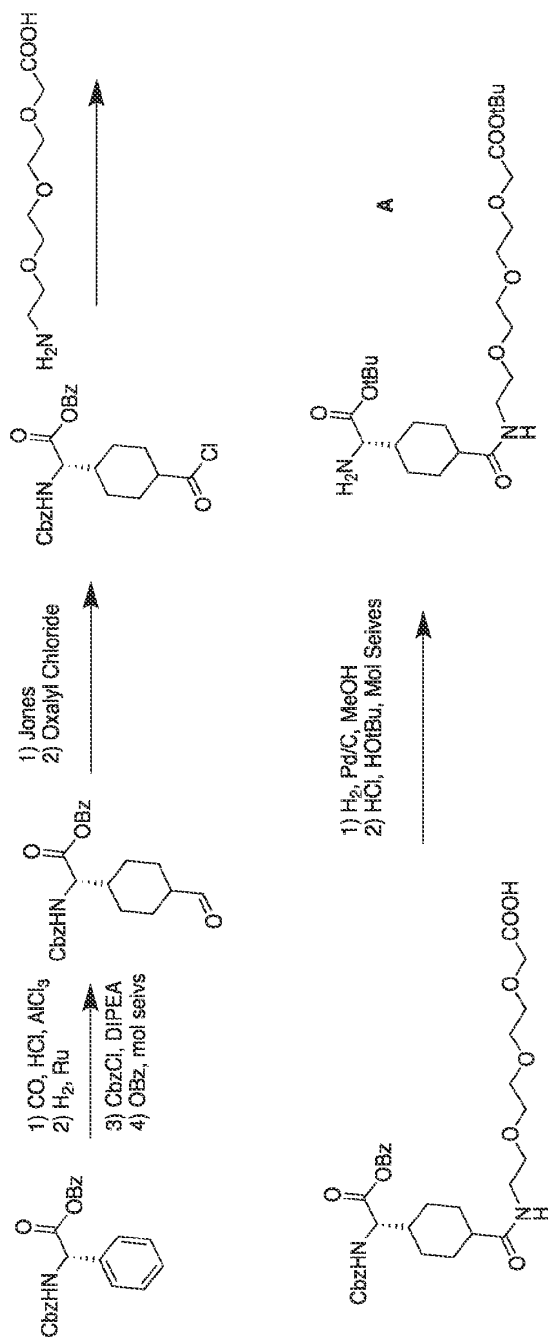


FIGURE 70 (Cont'd)

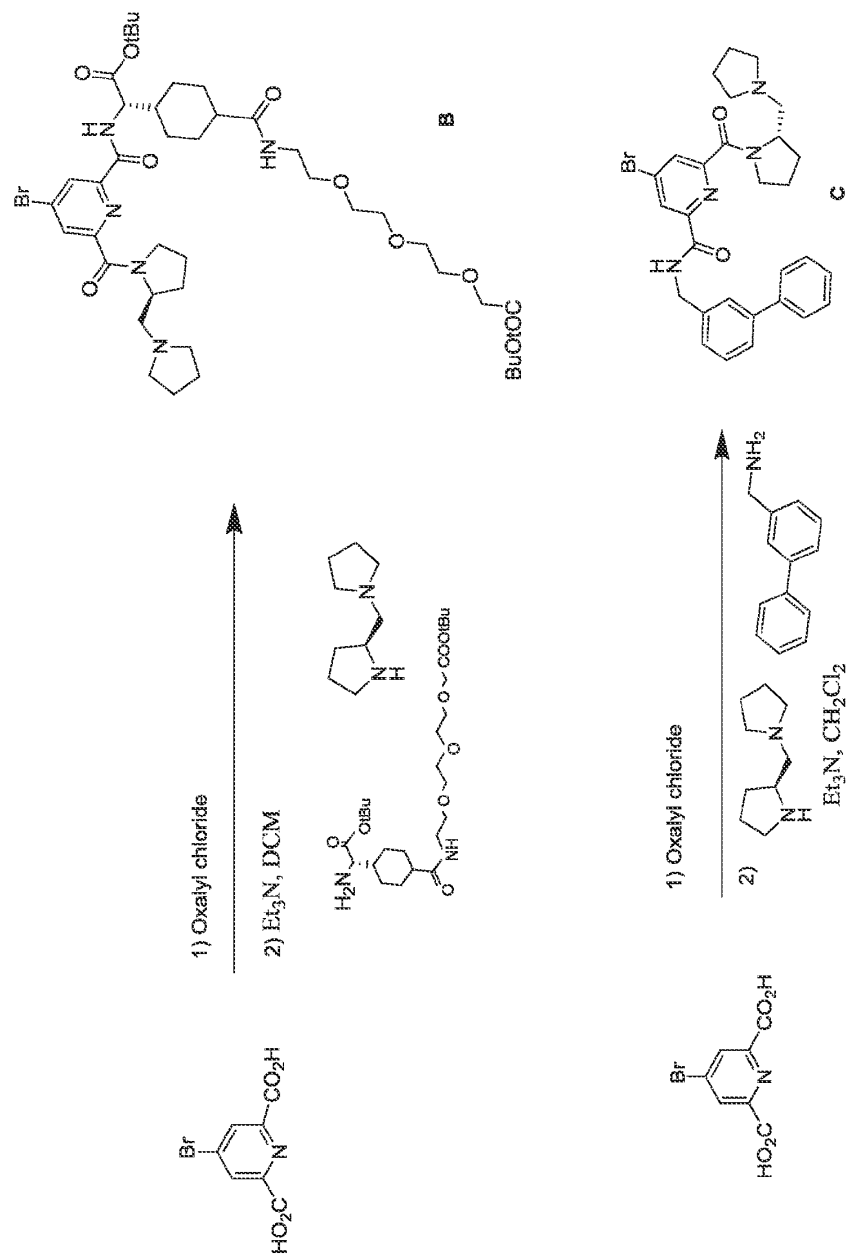


FIGURE 70 (Cont'd)

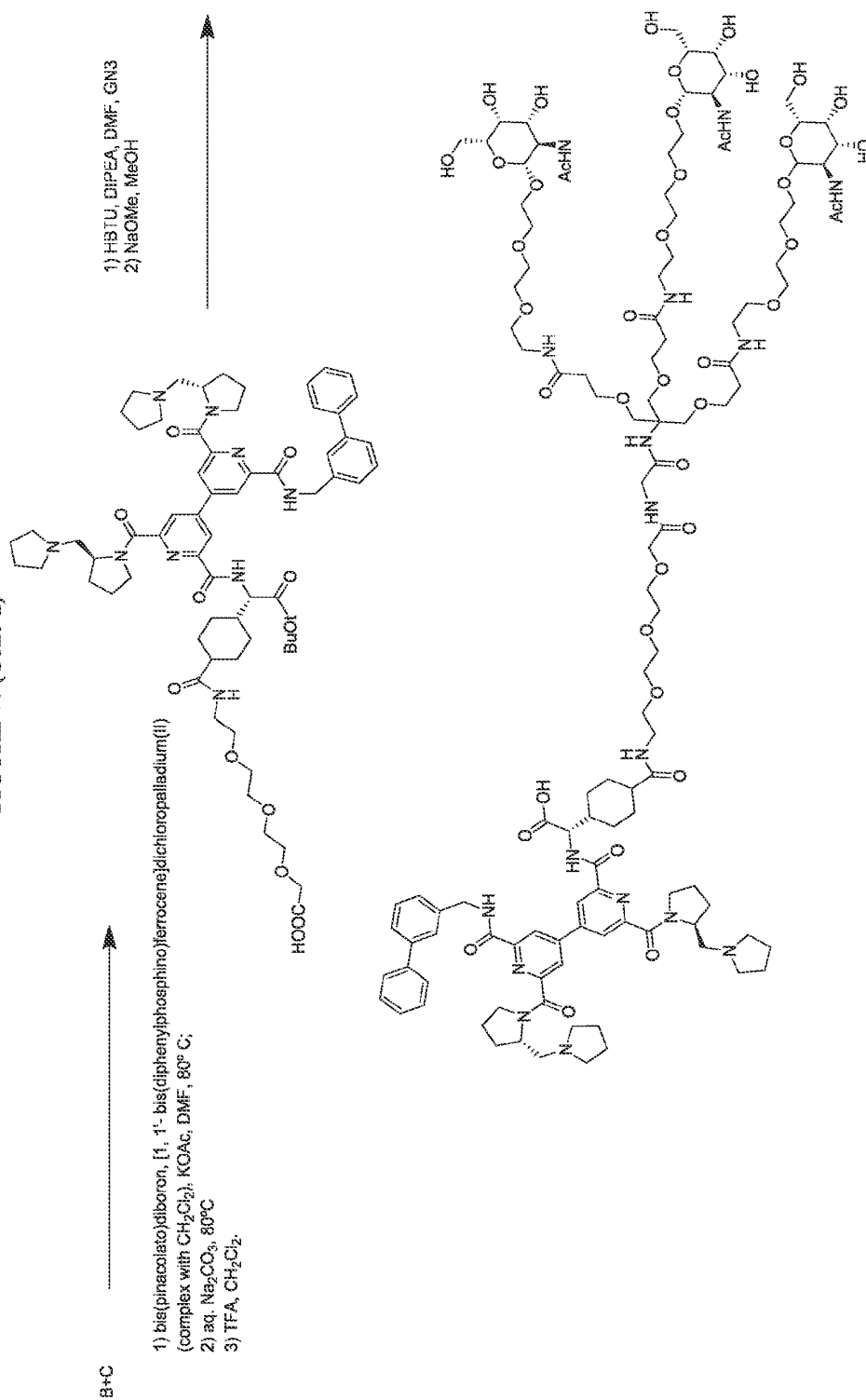


FIGURE 71

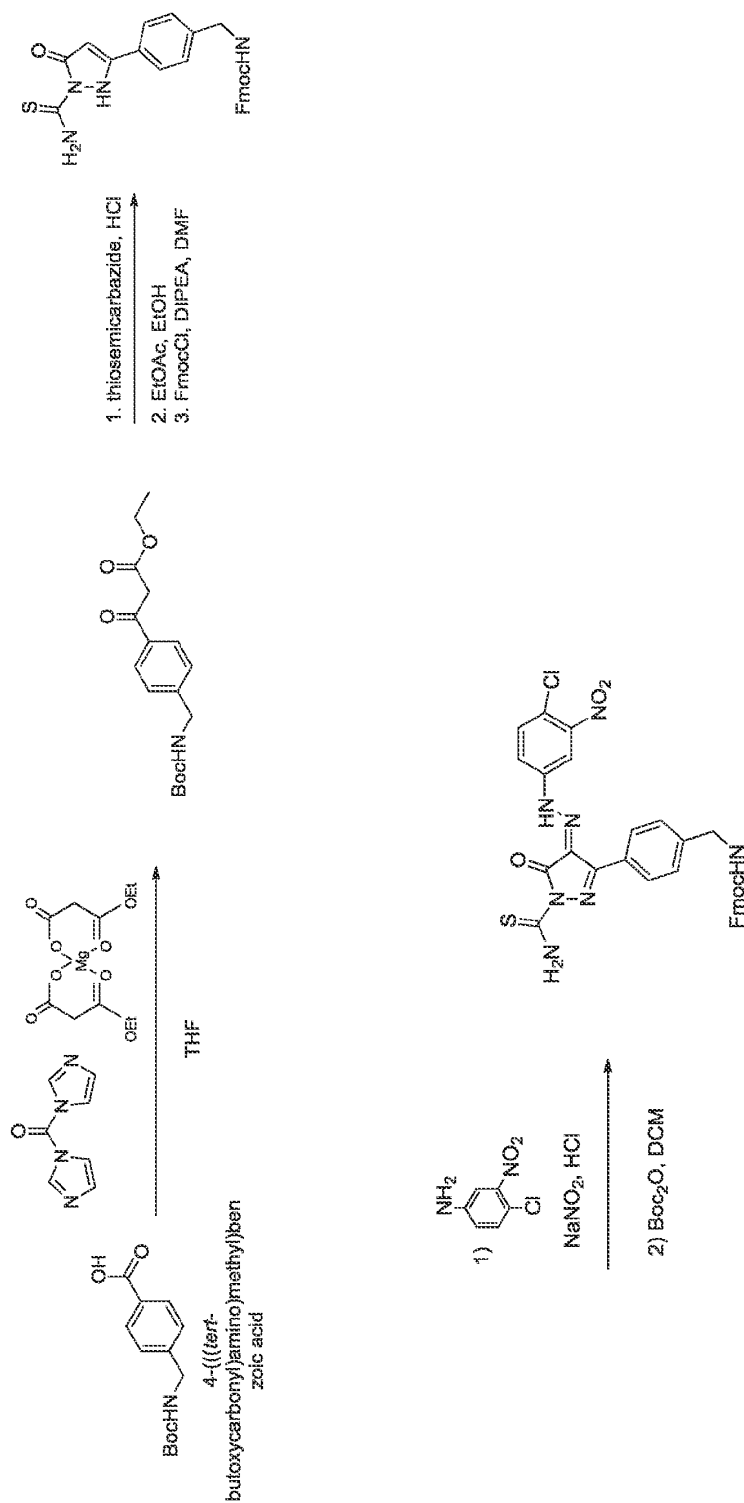


FIGURE 71 (Cont'd)

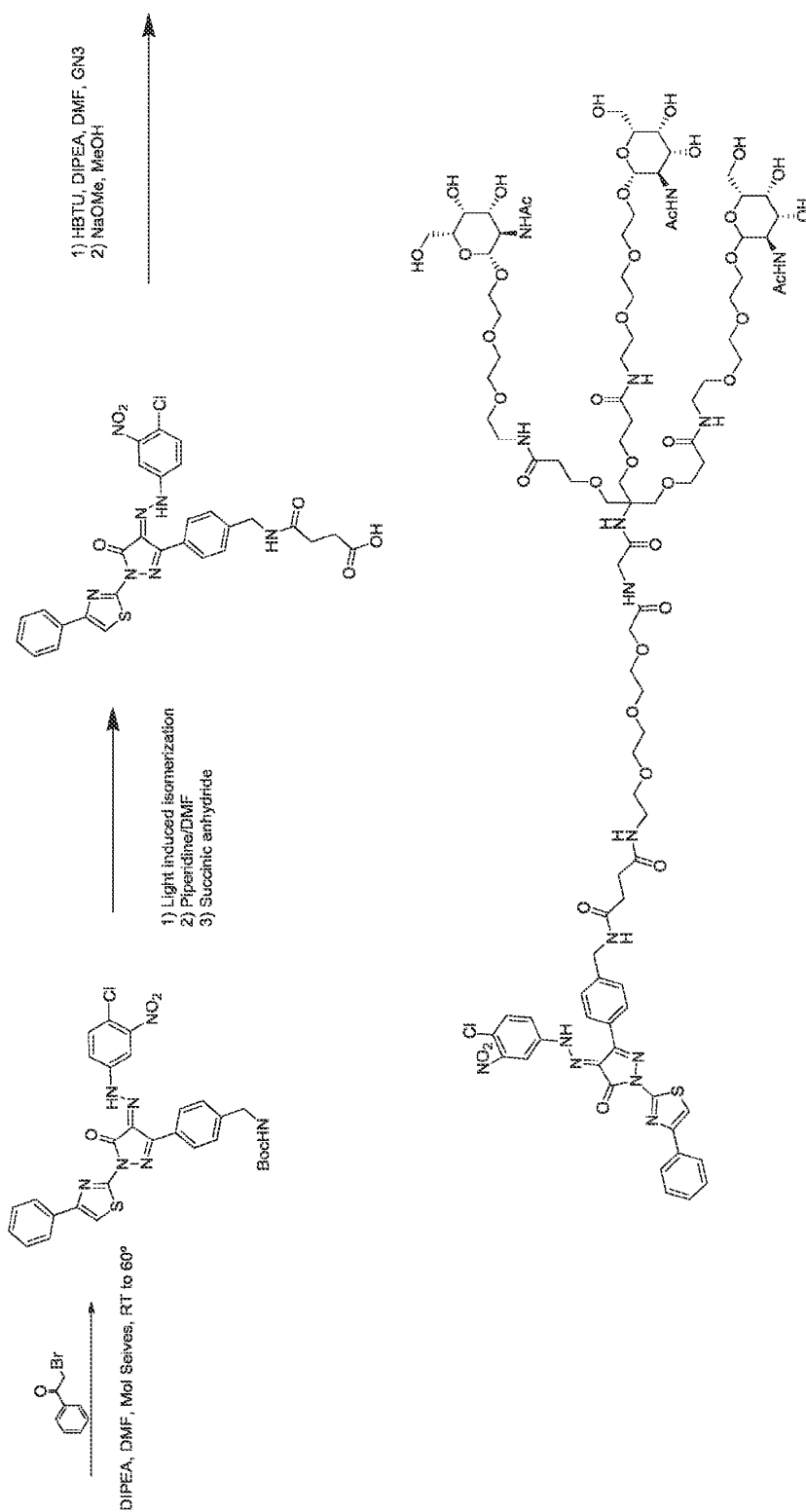


FIGURE 72

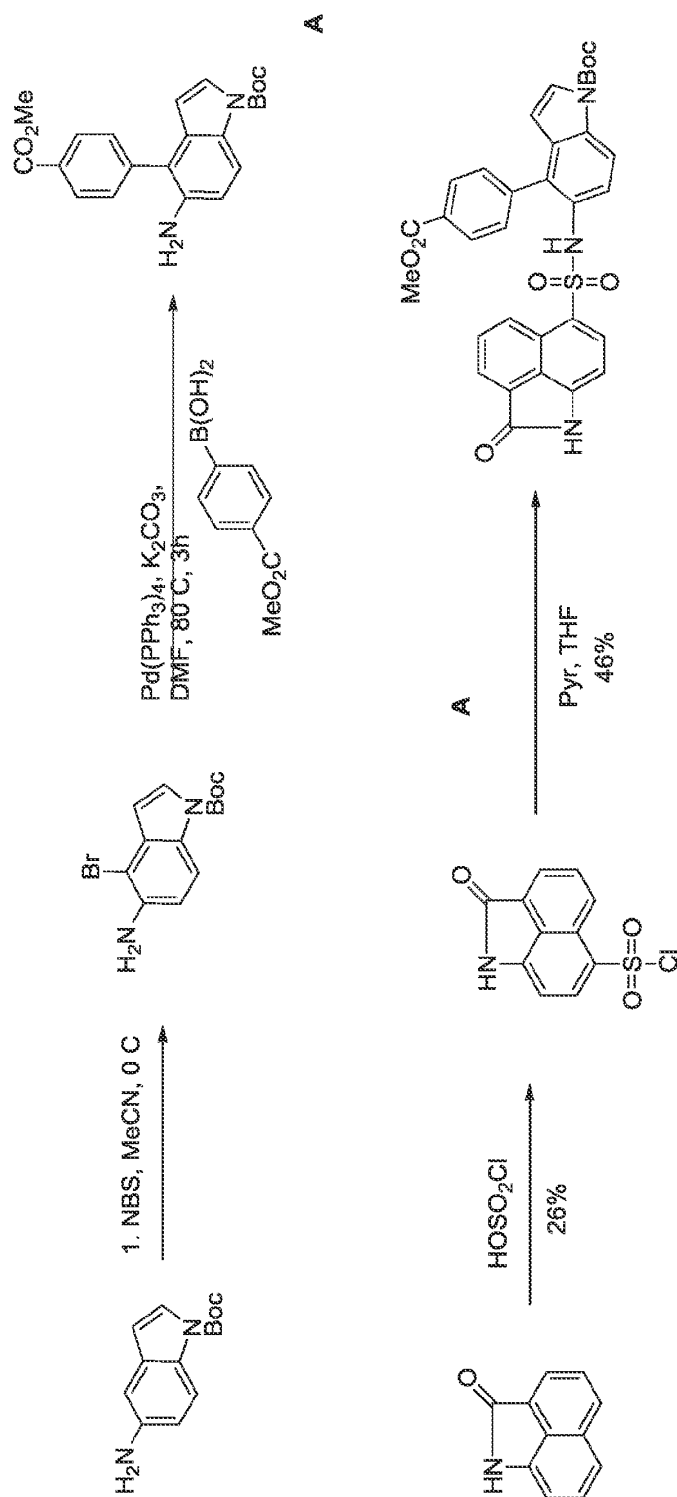


FIGURE 72 (cont'd)

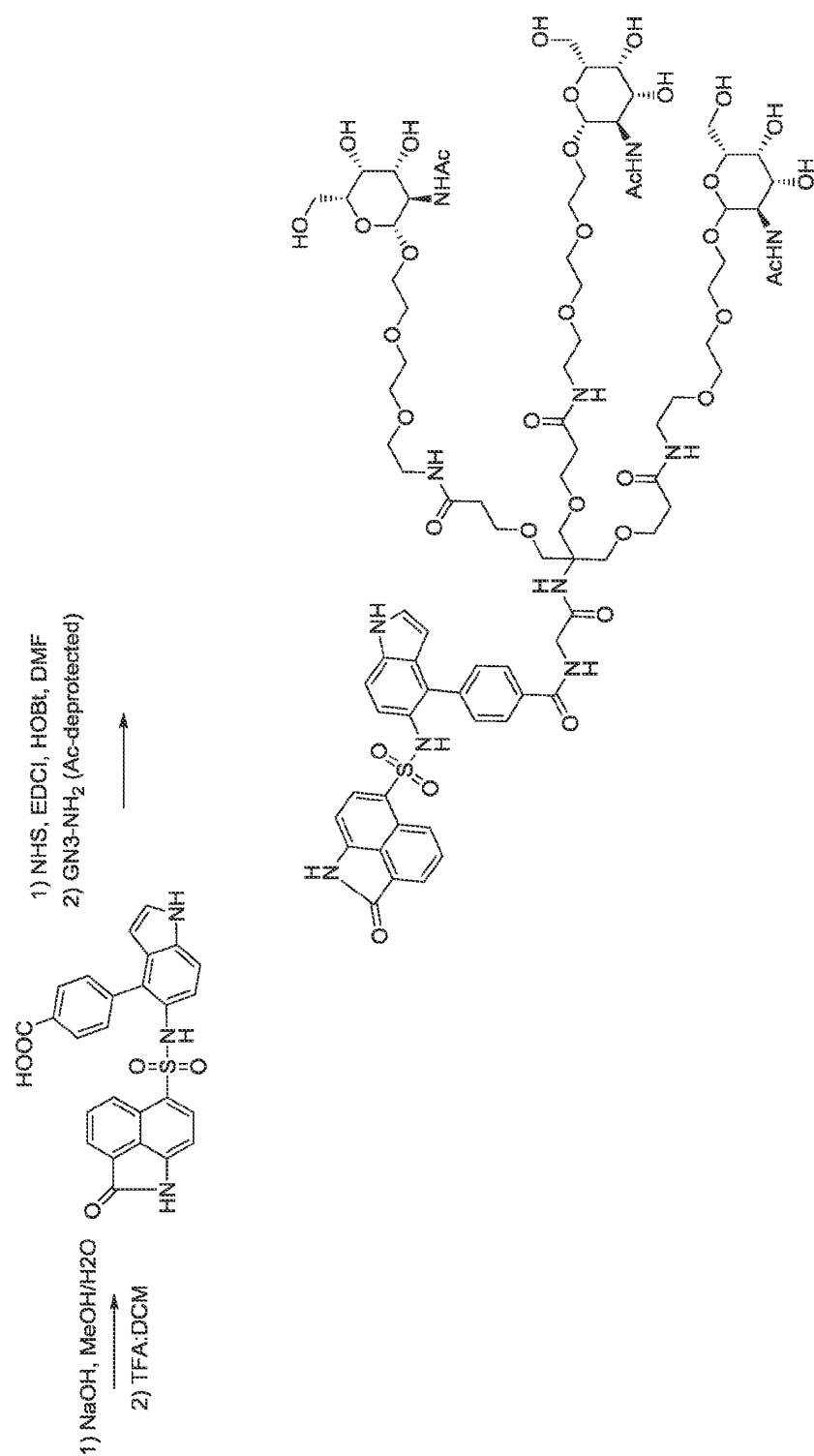


FIGURE 73

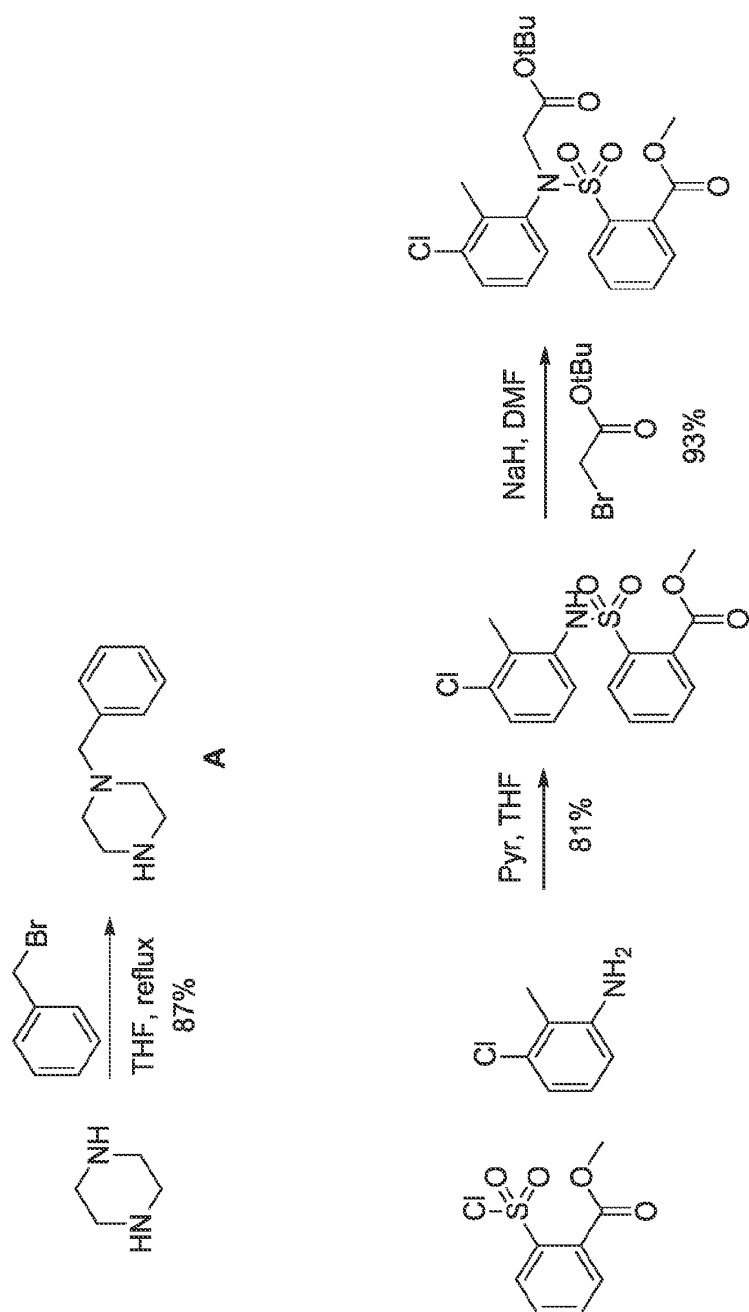


FIGURE 73 (Cont'd)

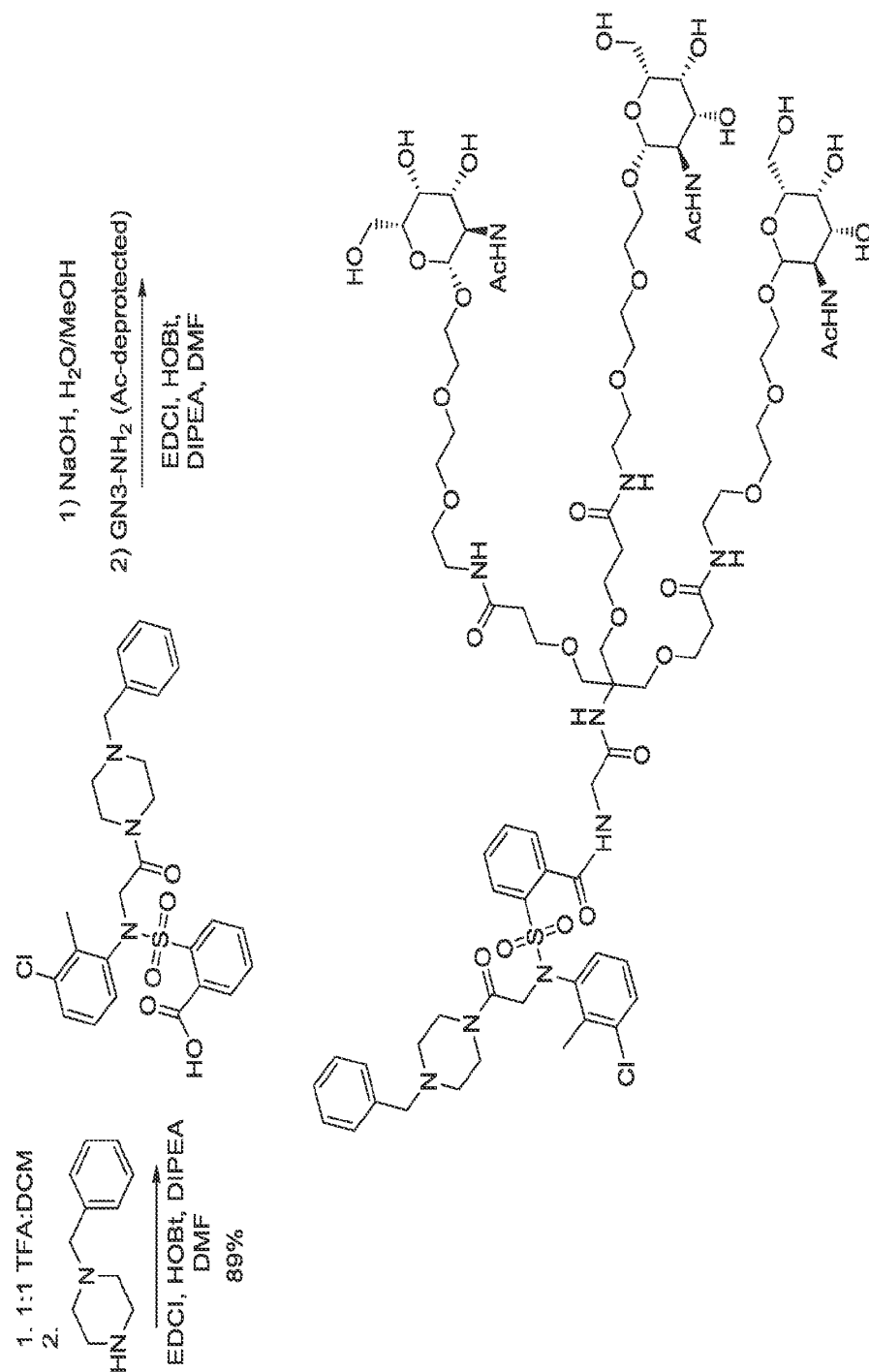


FIGURE 74

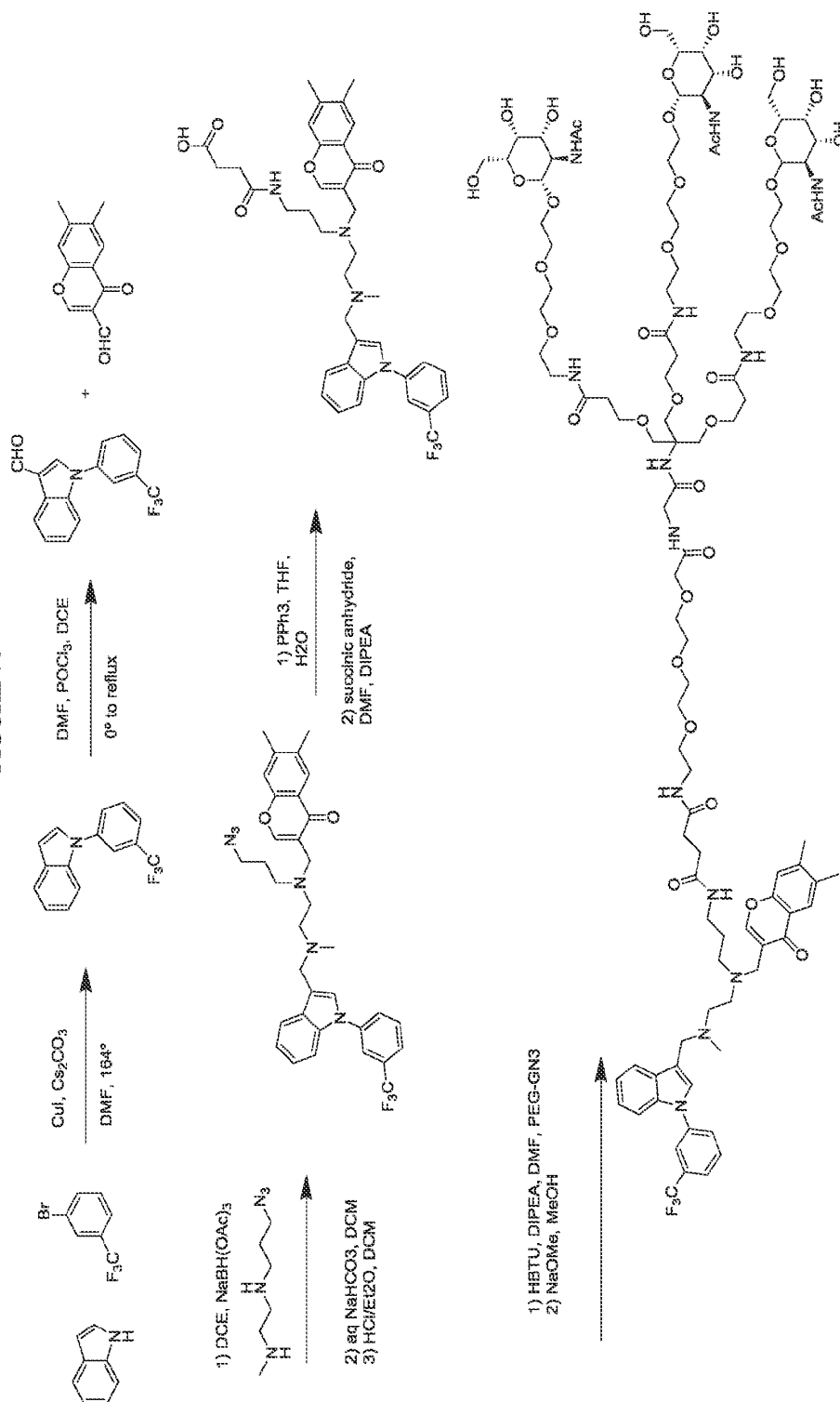


FIGURE 75

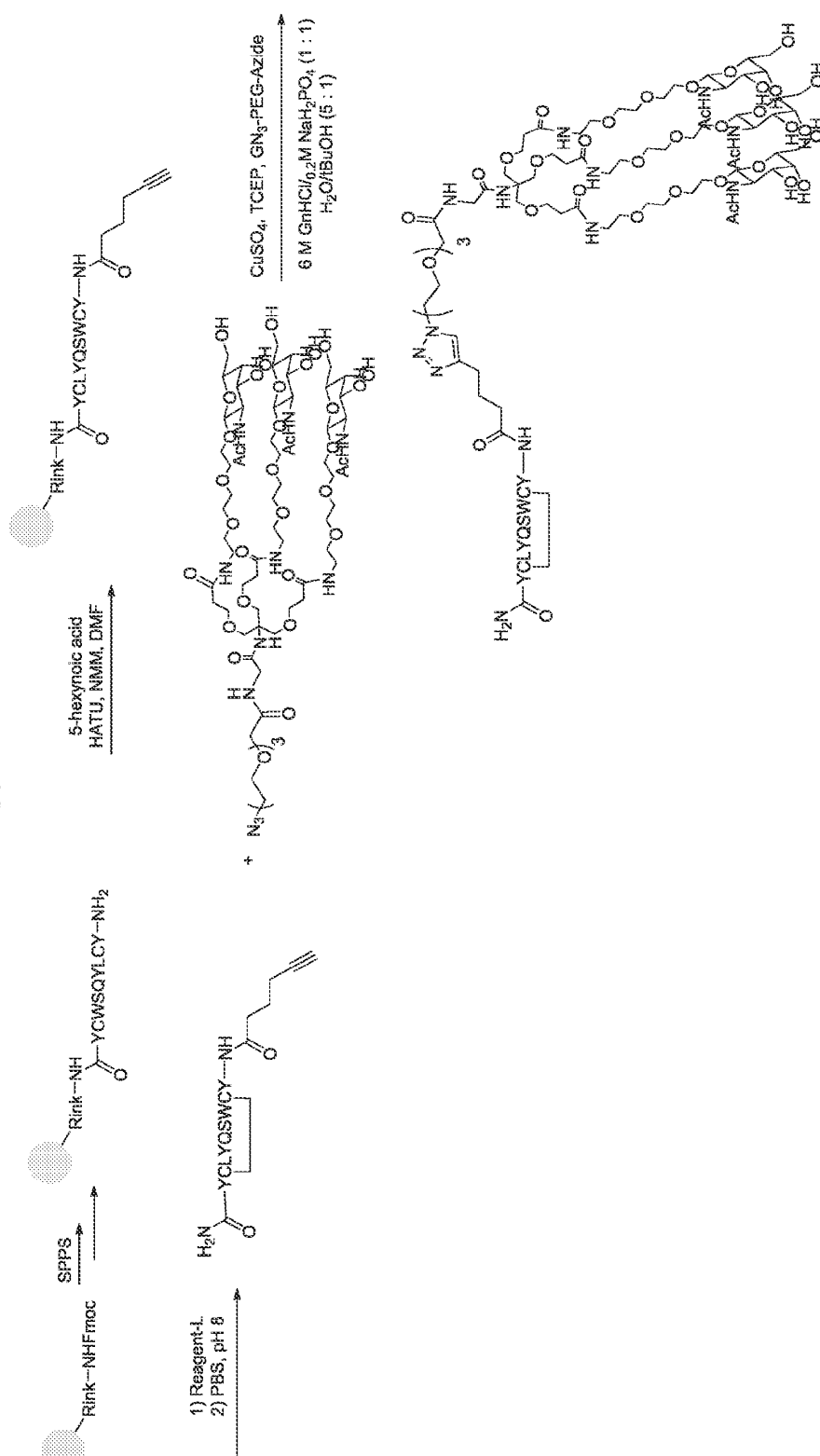


FIGURE 76

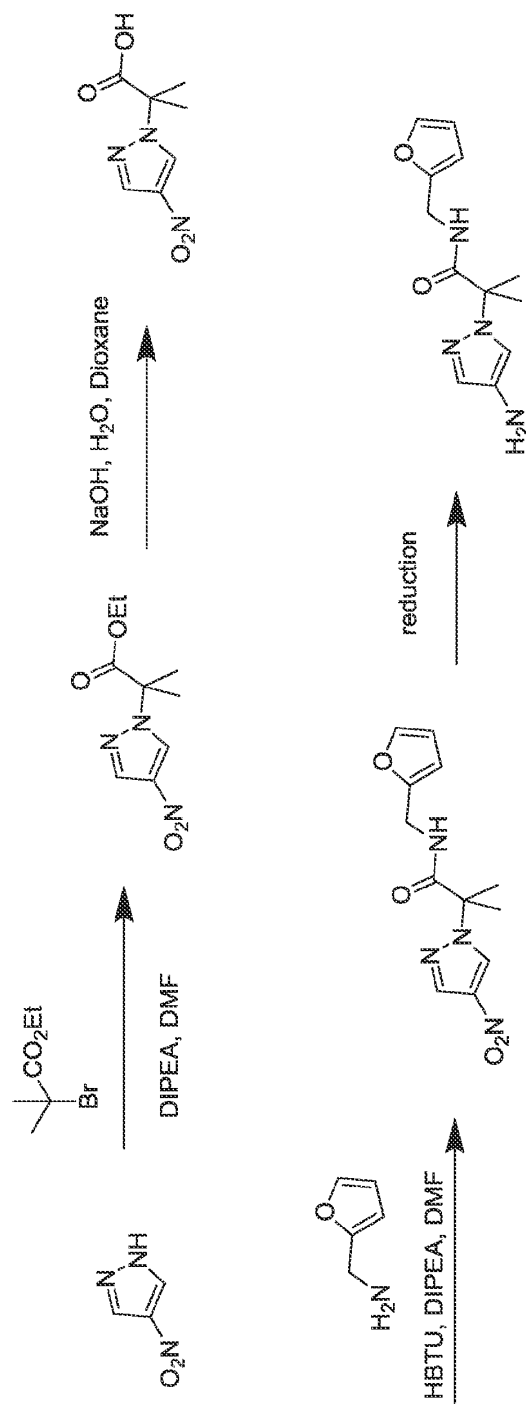


FIGURE 76 (Cont'd)

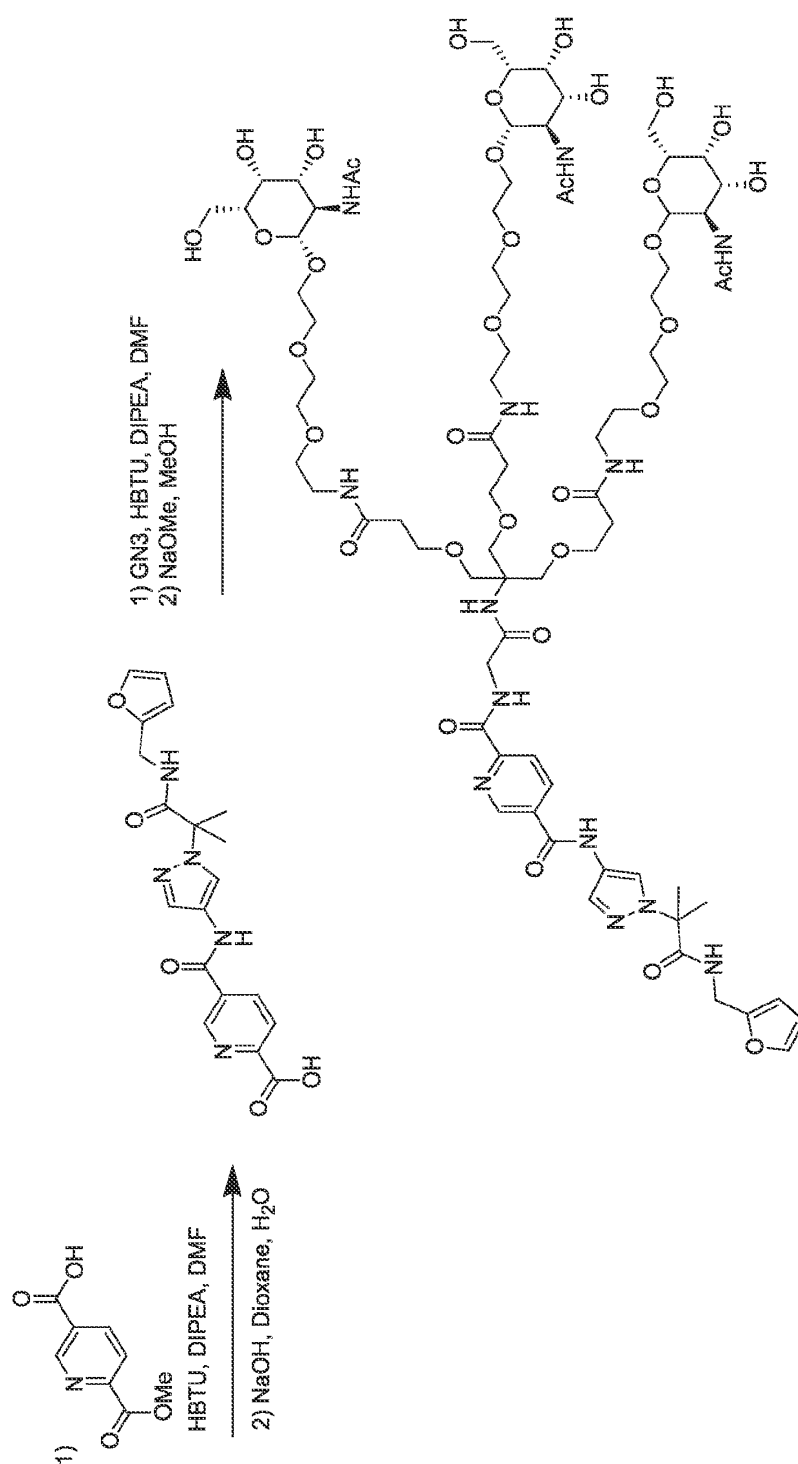


FIGURE 77

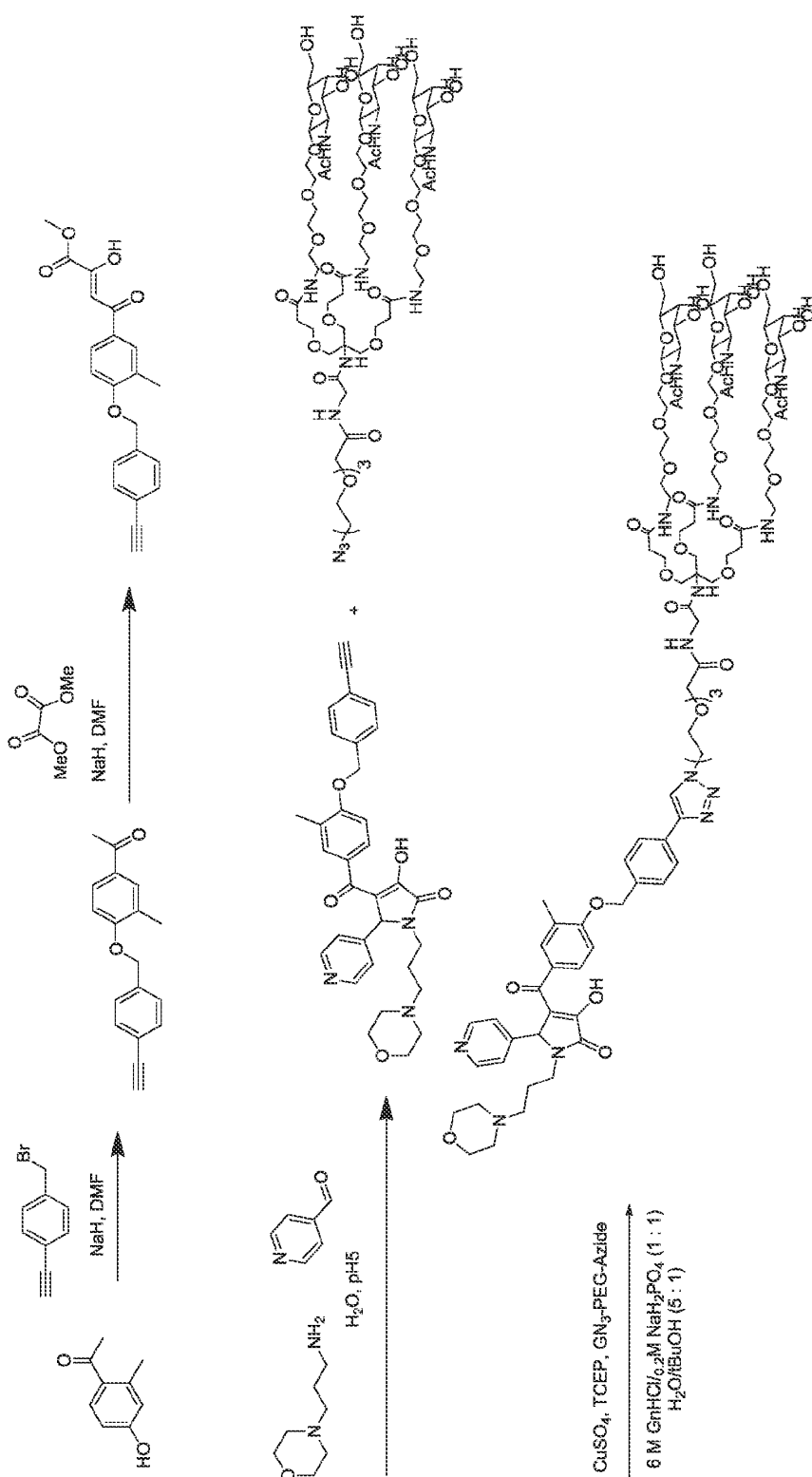


FIGURE 78

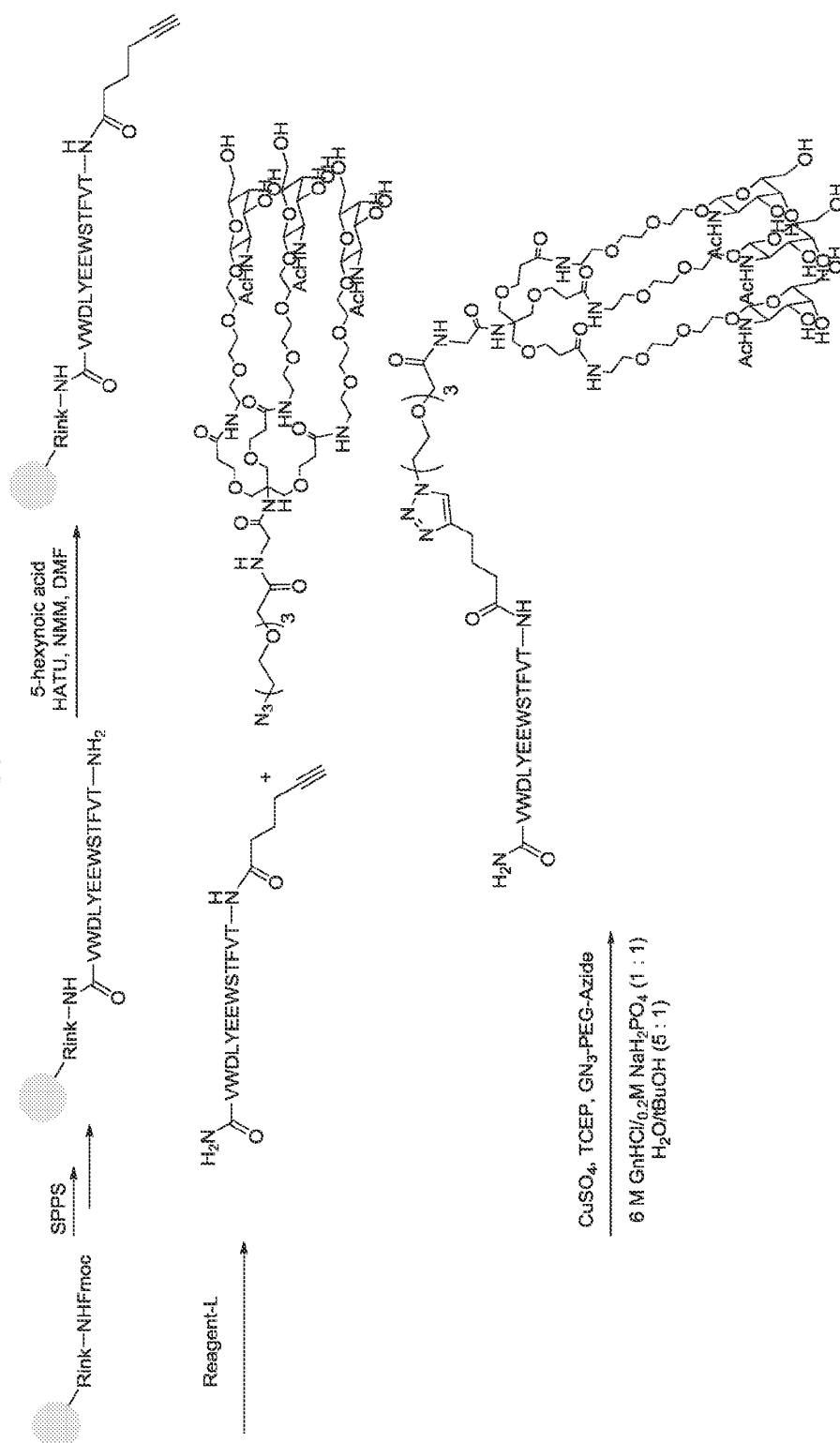


FIGURE 79

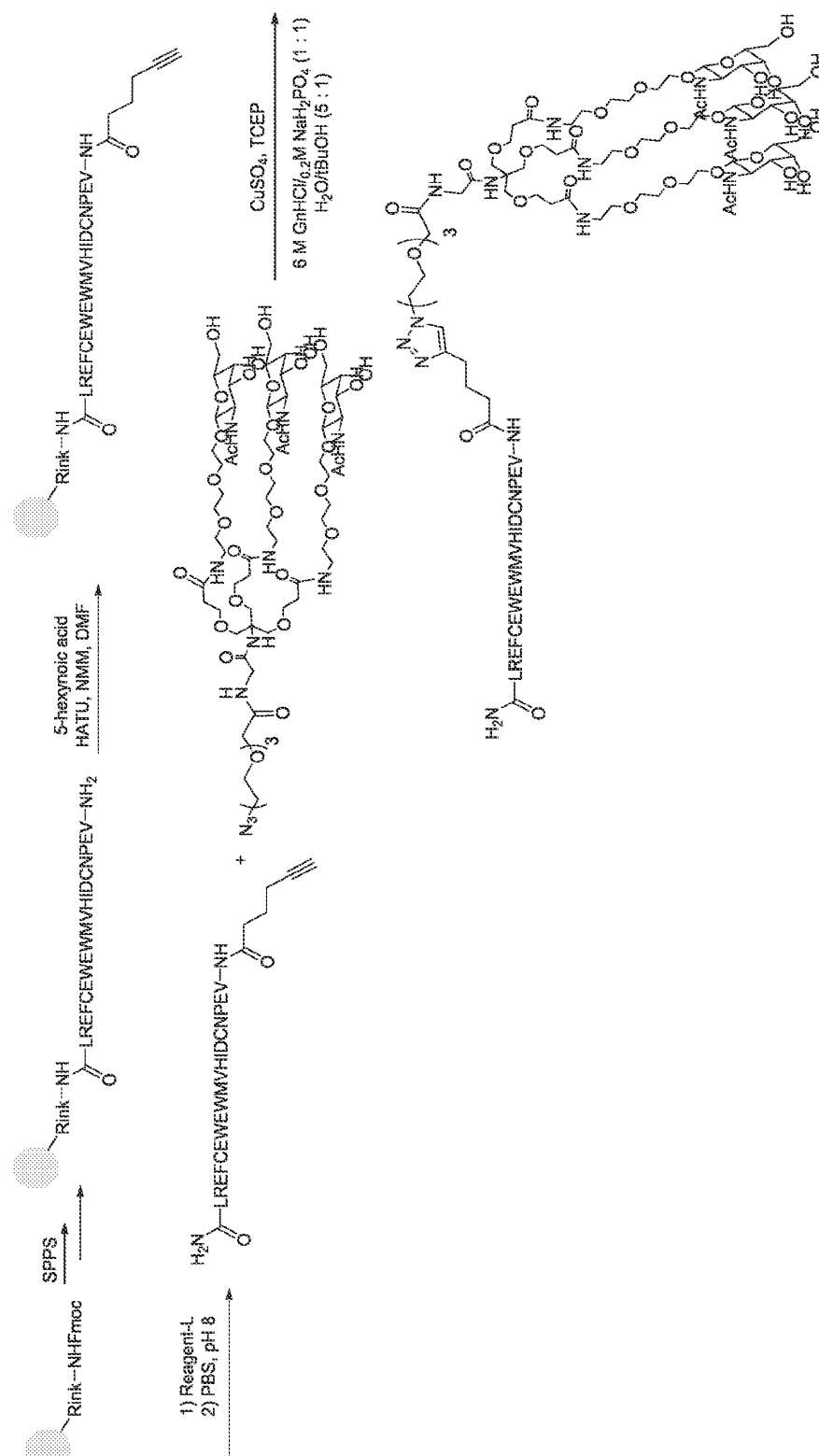


FIGURE 80

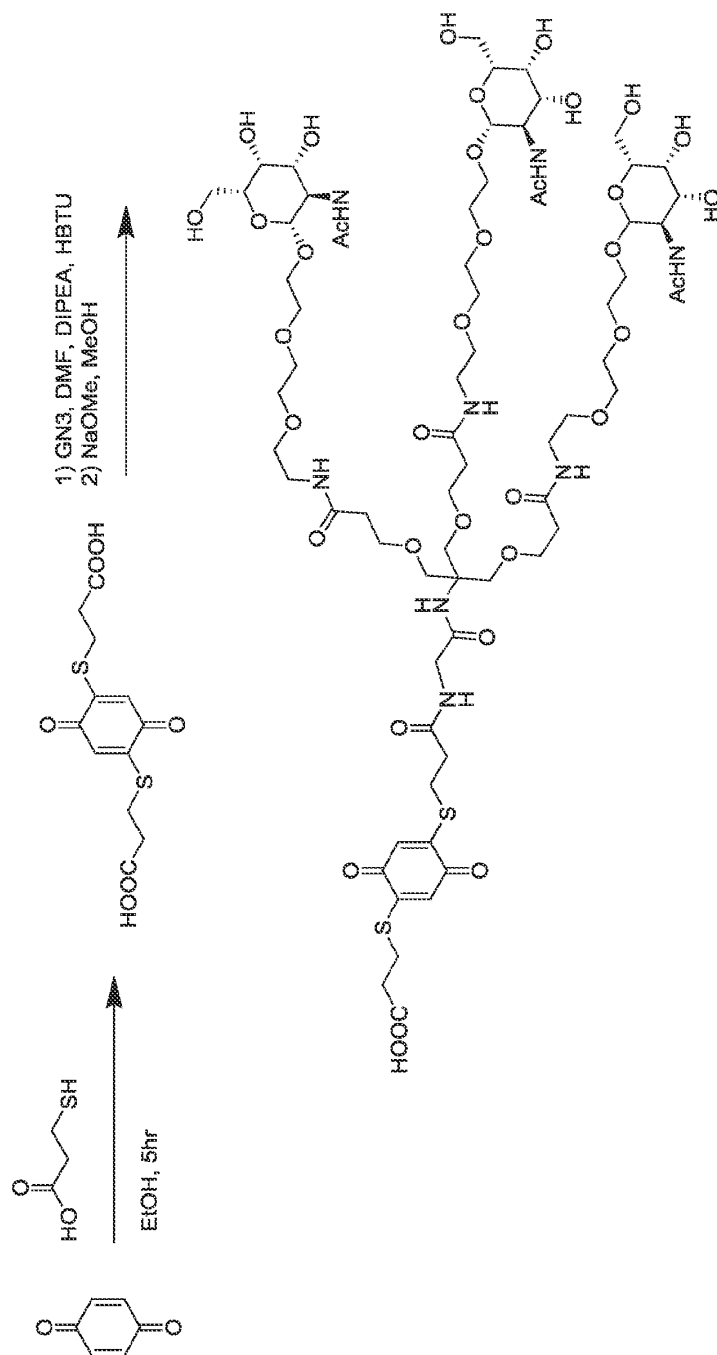


FIGURE 81

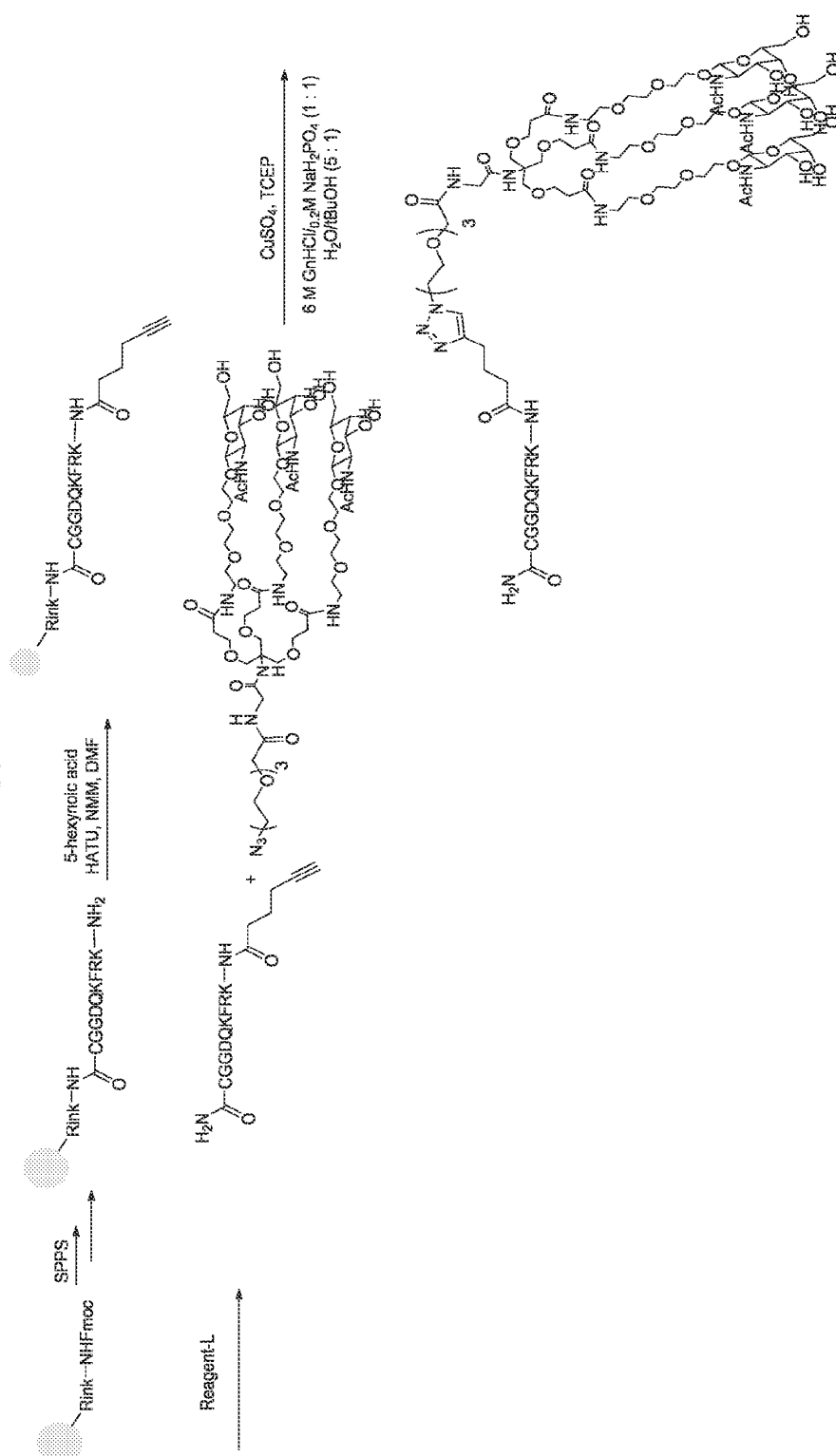


FIGURE 82

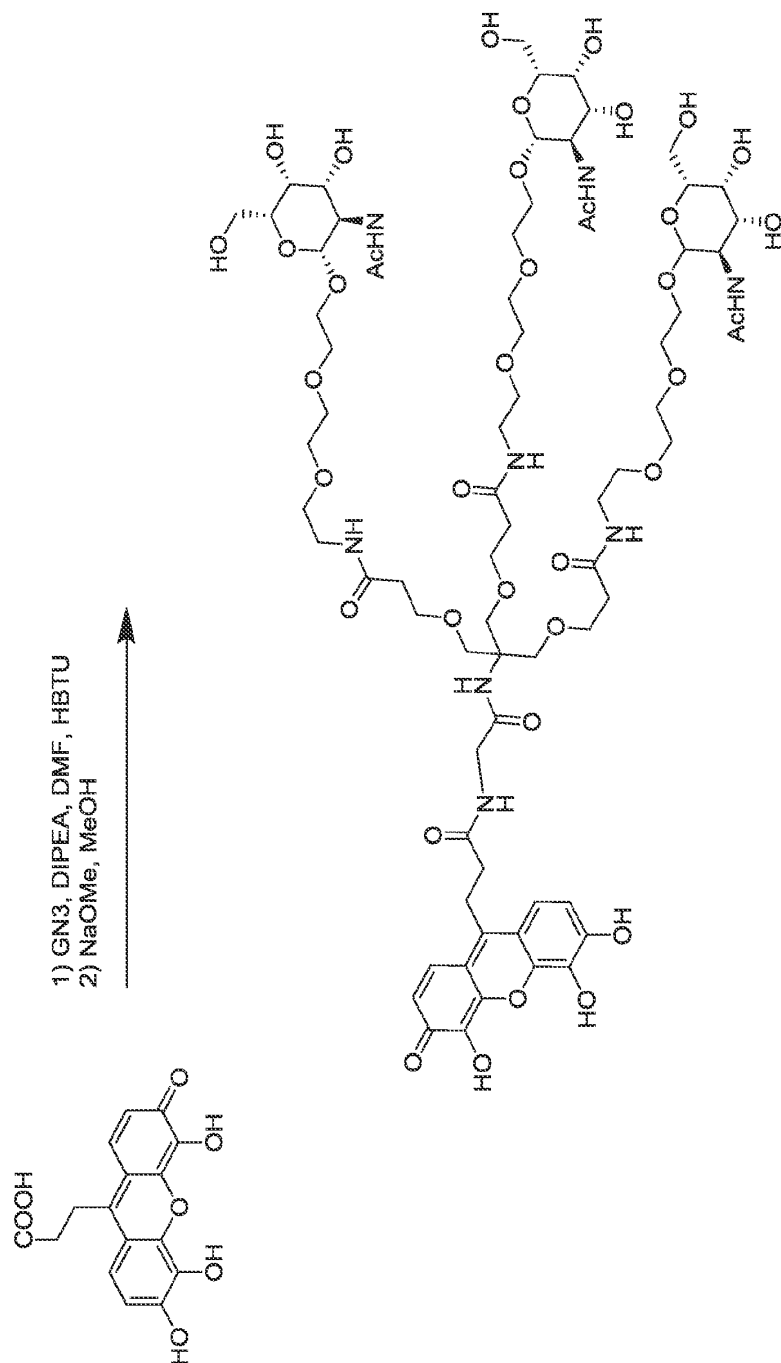


FIGURE 83

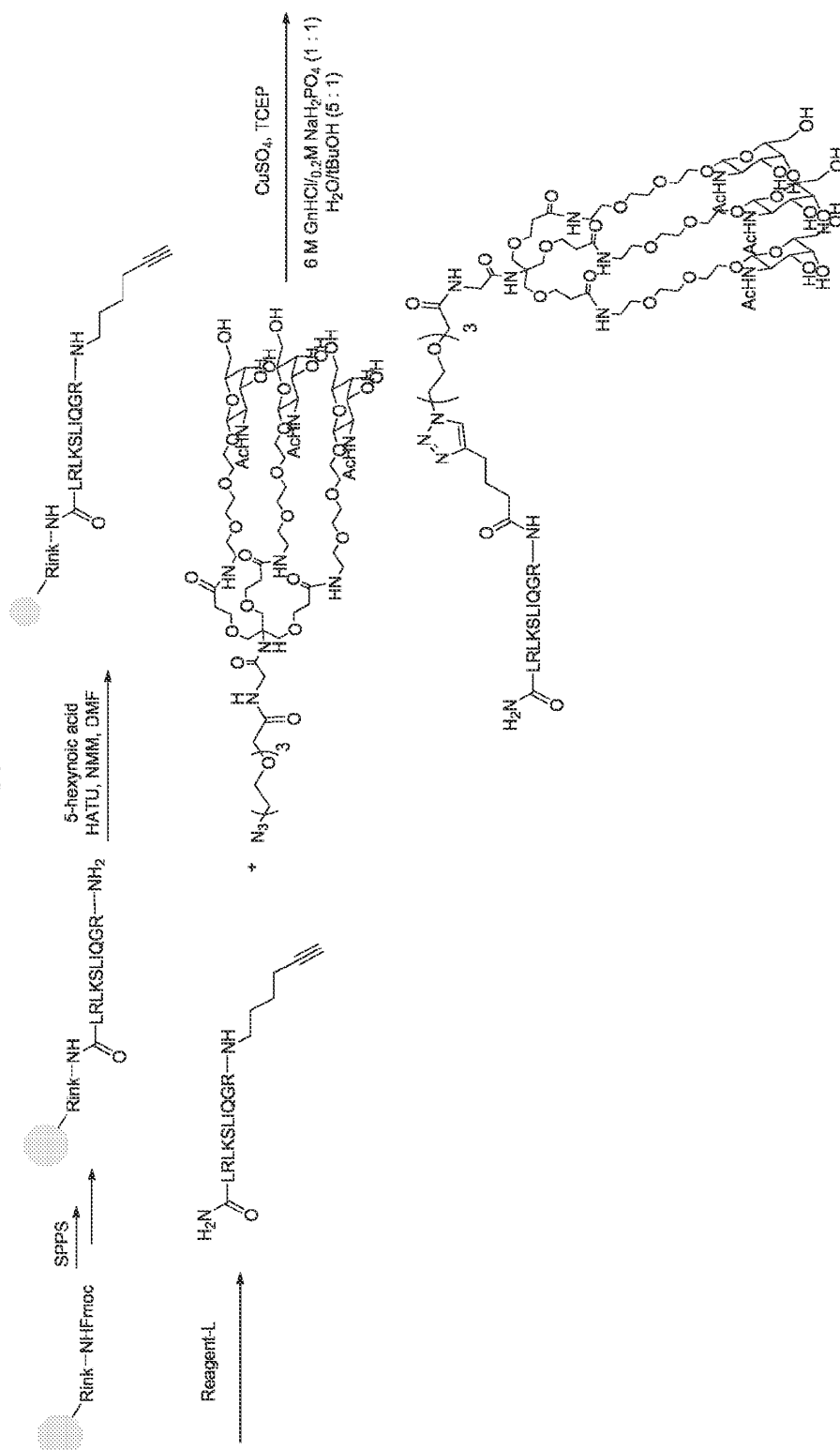


FIGURE 84

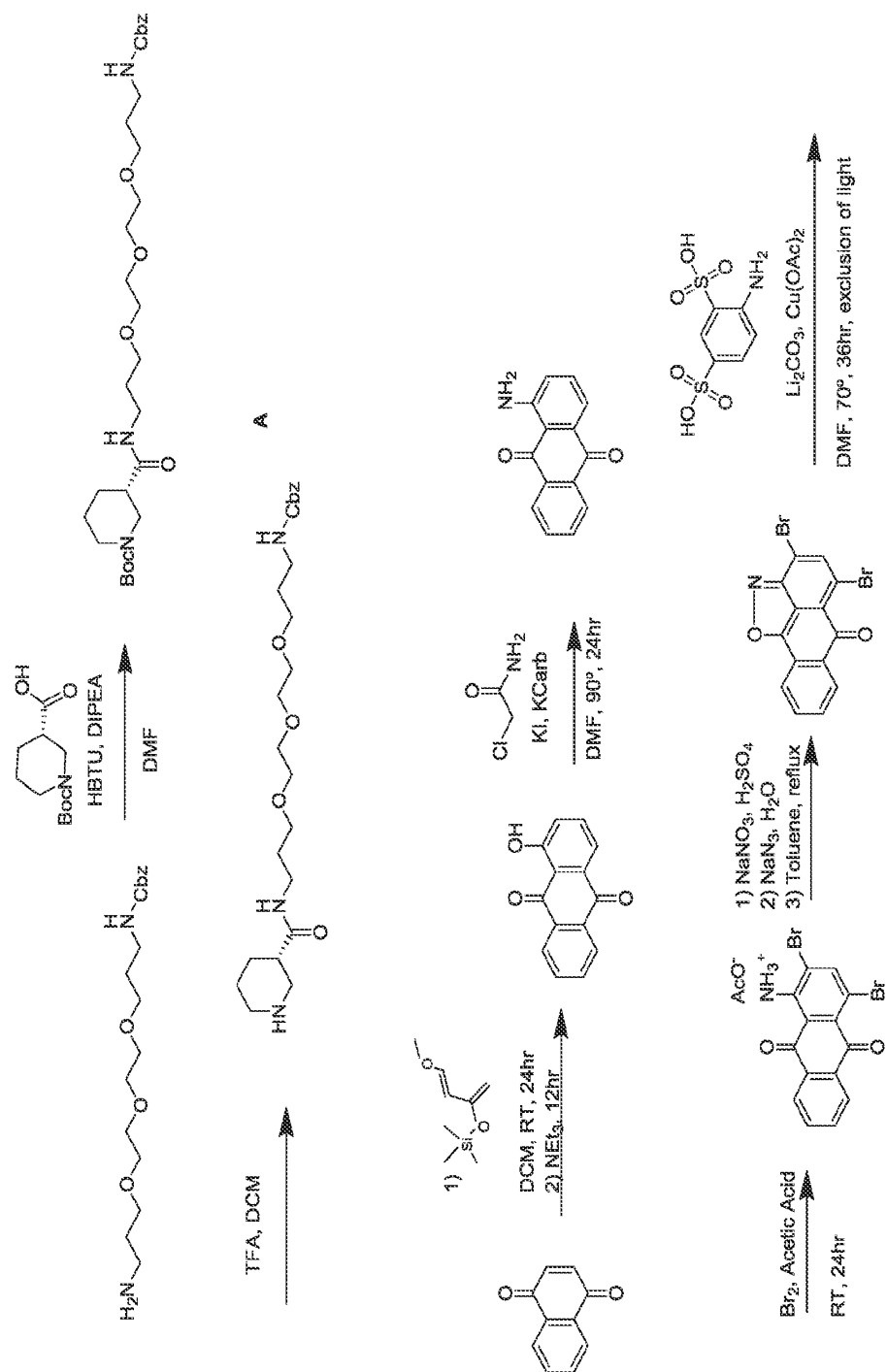


FIGURE 84 (Cont'd)

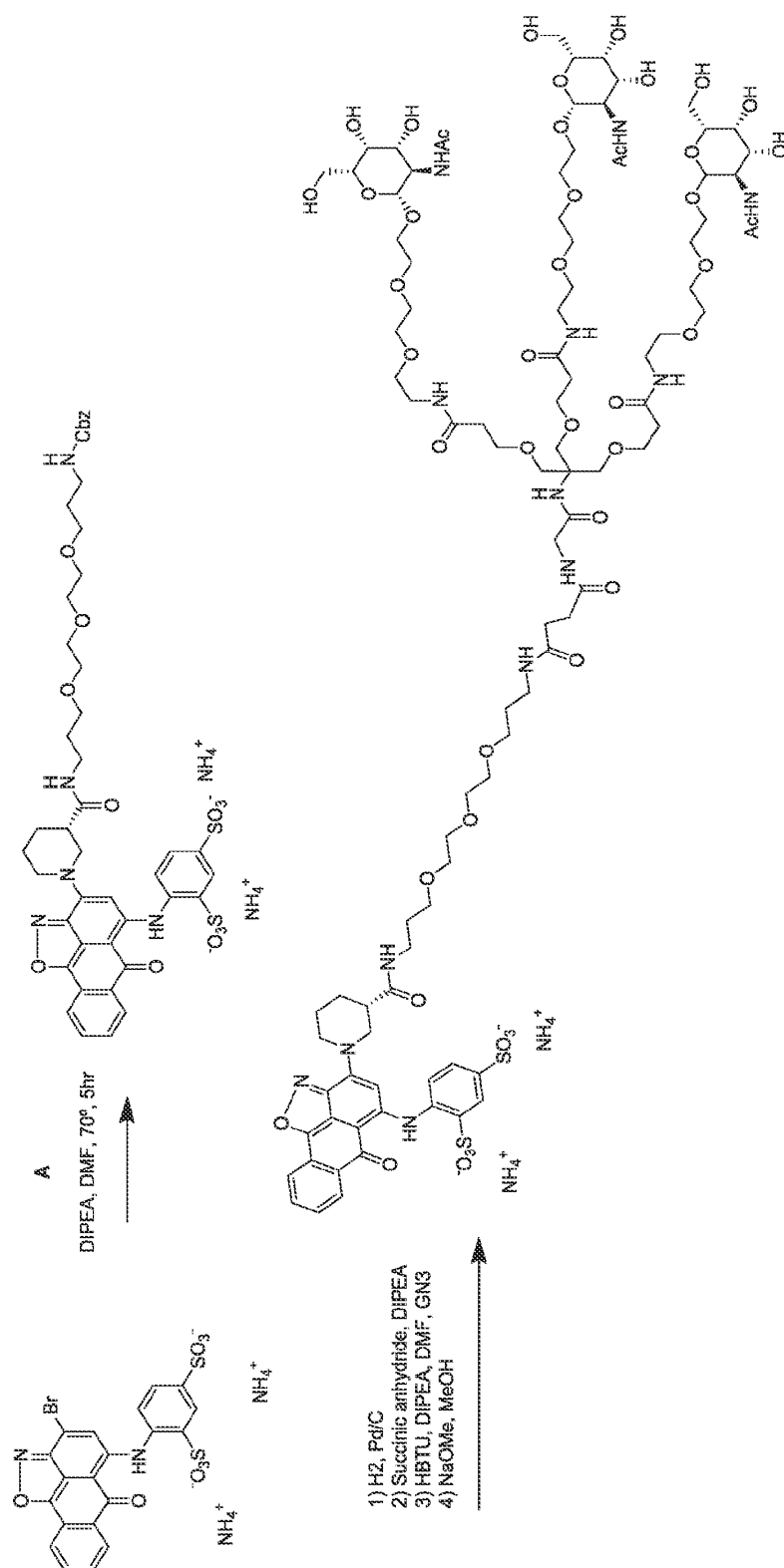


FIGURE 85

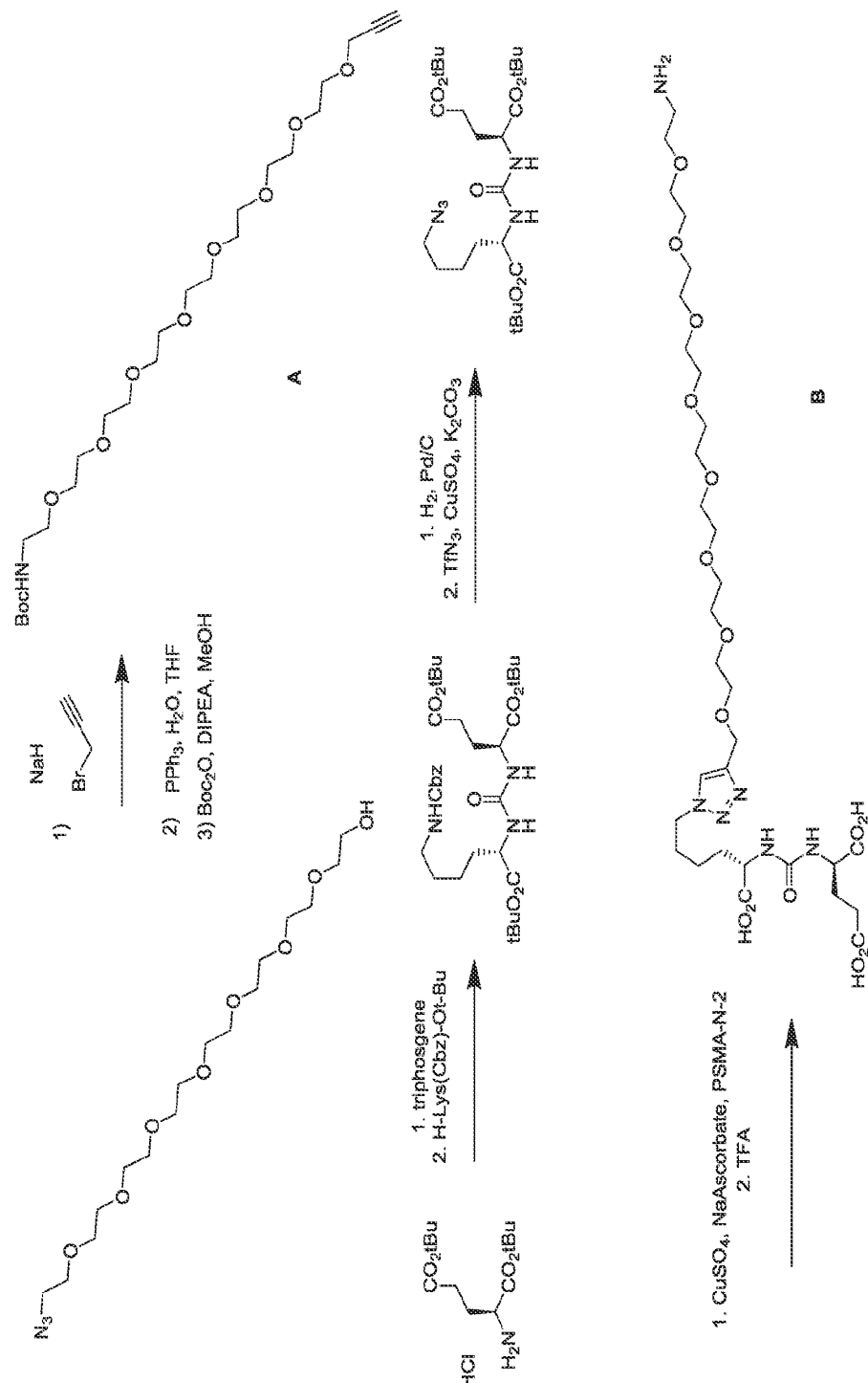


FIGURE 85 (Cont'd)

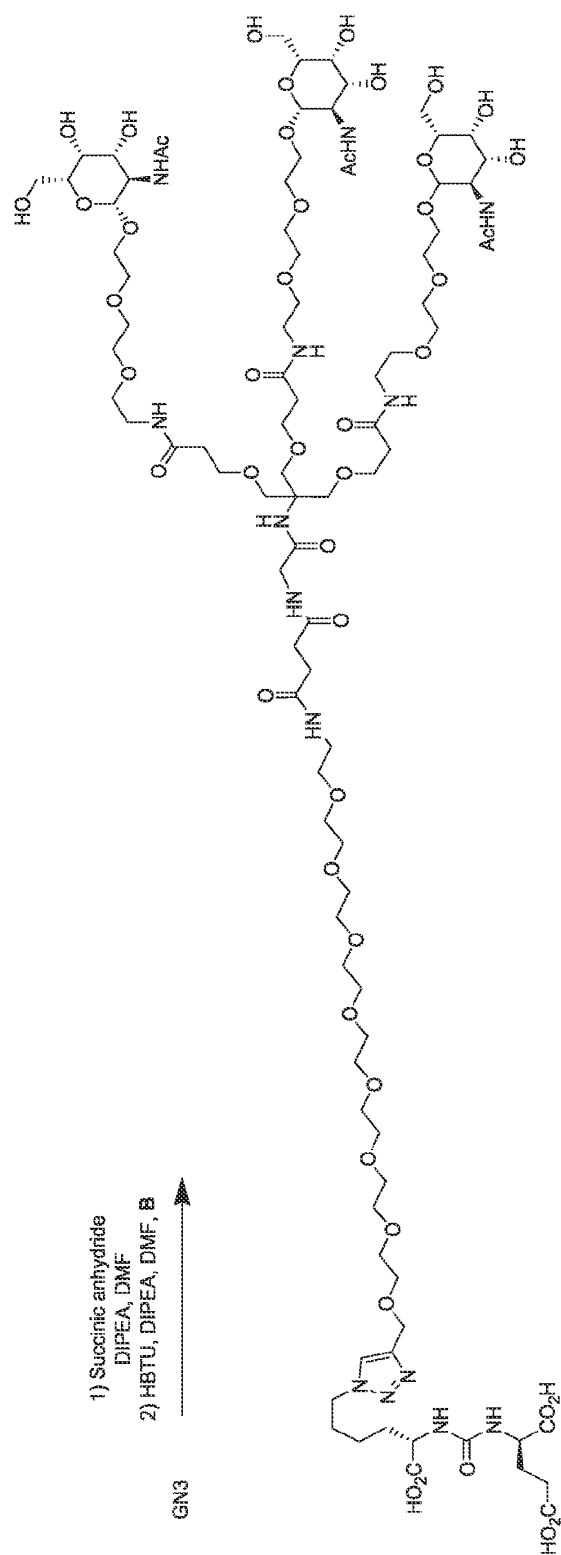


FIGURE 86

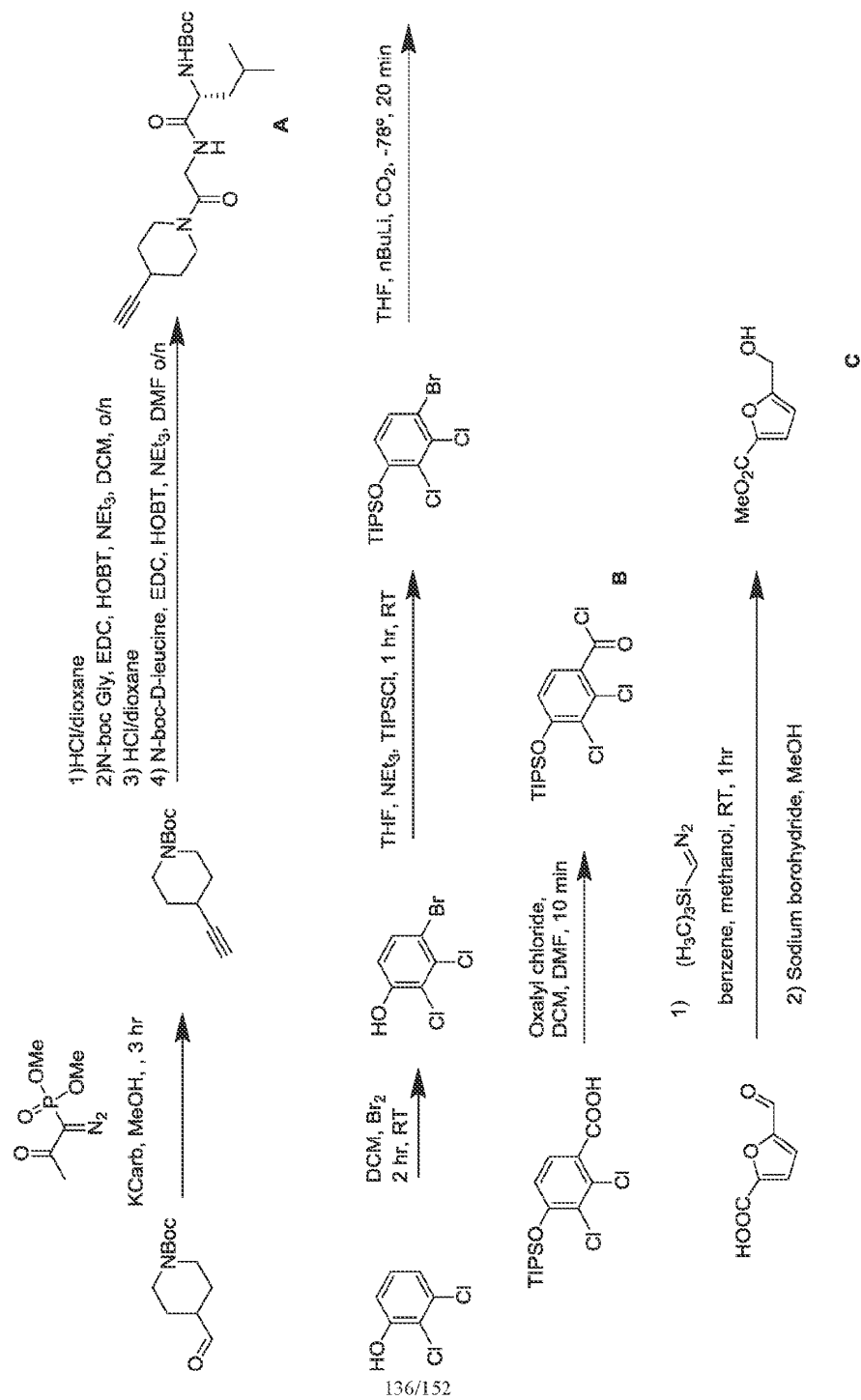


FIGURE 86 (Cont'd)

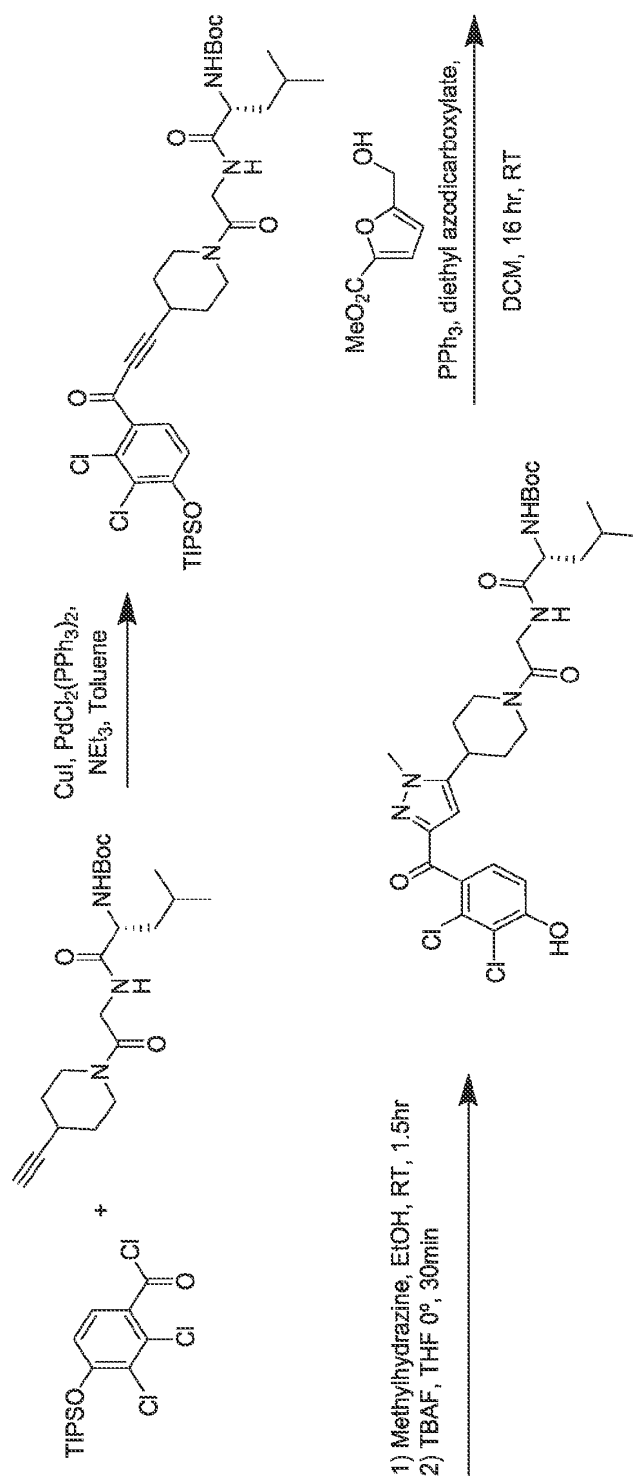


FIGURE 86 (Cont'd)

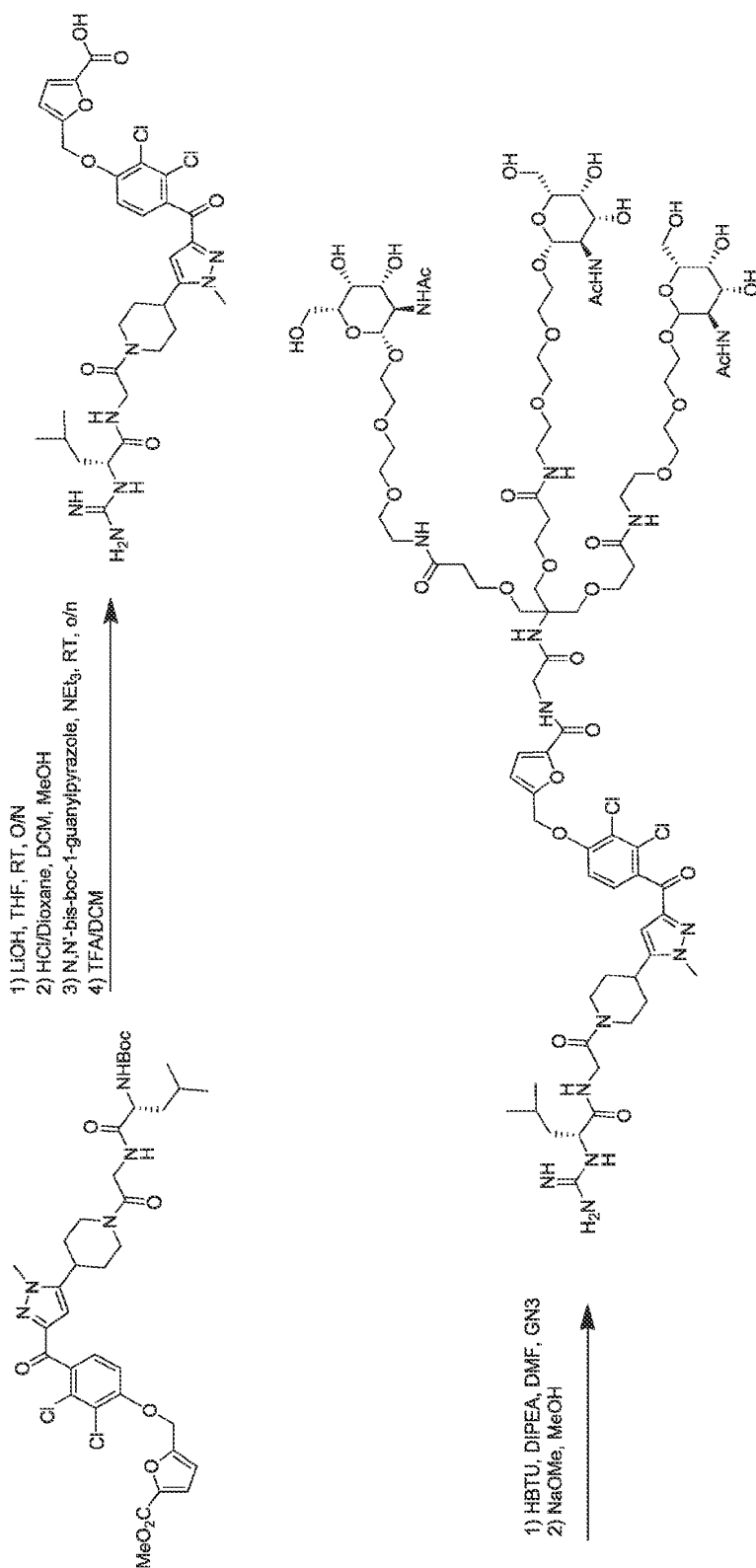


FIGURE 87 (Cont'd)

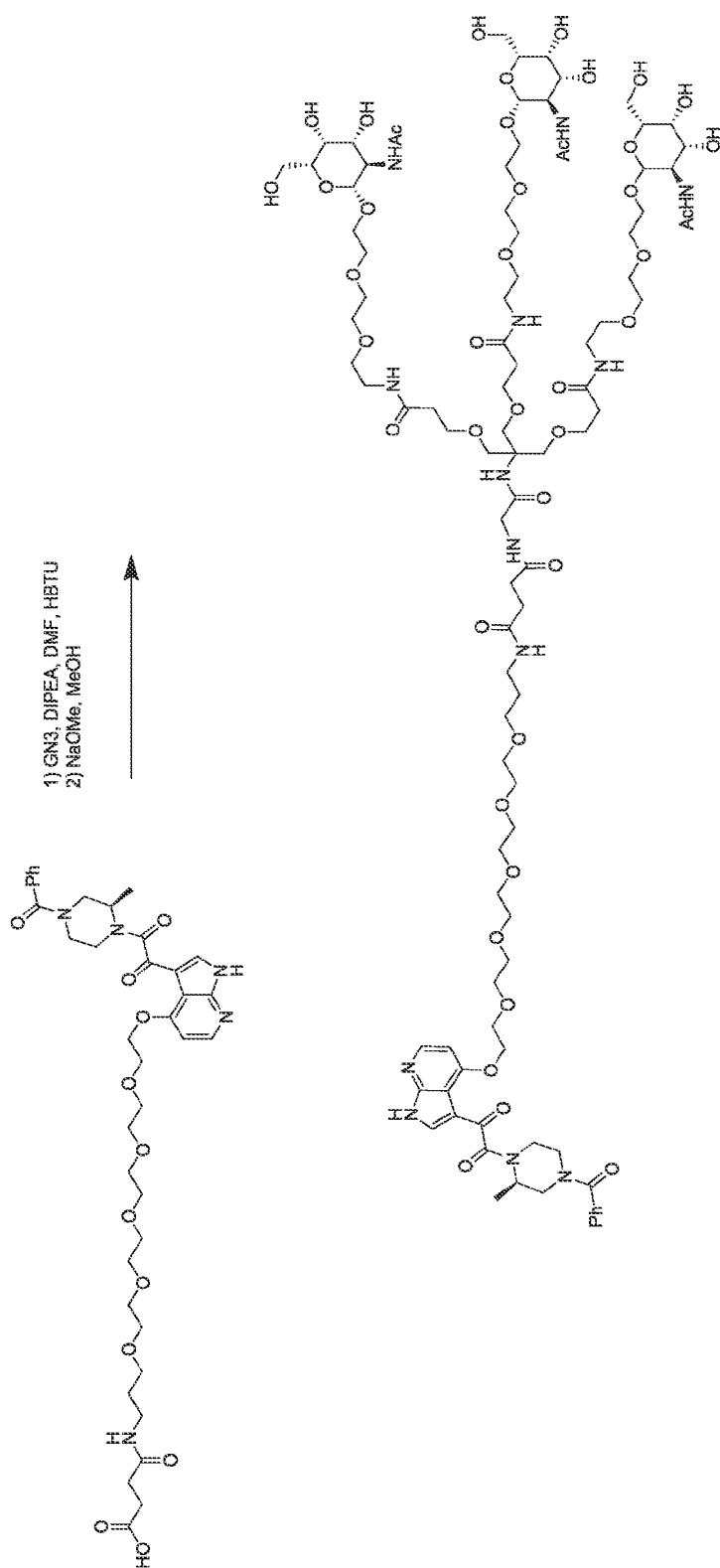


FIGURE 88

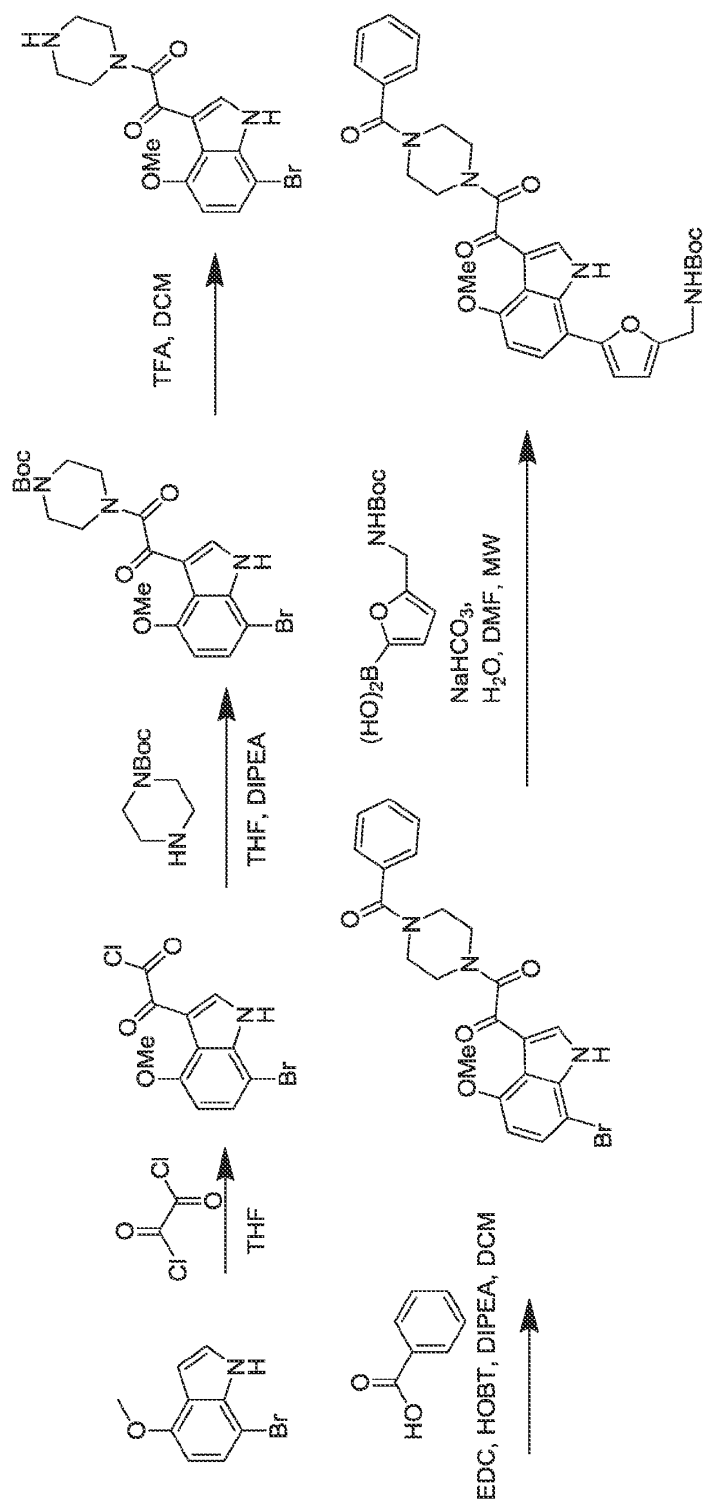


FIGURE 88 (Cont'd)

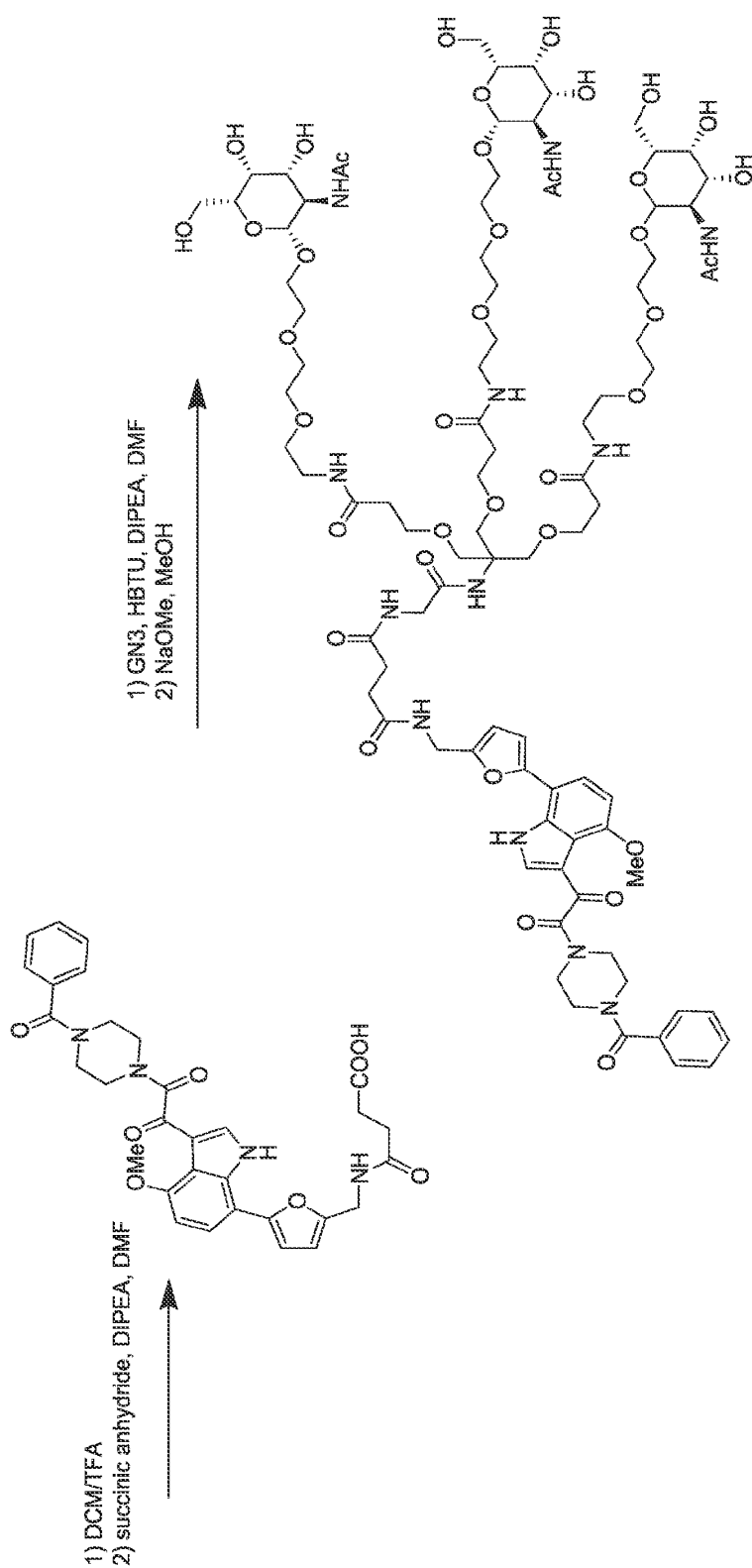


FIGURE 89

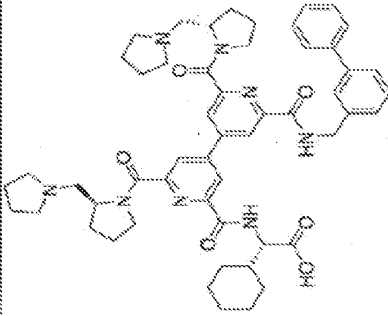
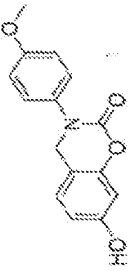
	Target	Binding molecules	Indications	Example of <i>in vitro</i> assays	Example of <i>in vivo</i> assays
Circulating proteins	Soluble CD40L	 BIO6838 ACS Chem. Biol. 2011, 6, 638-647	HIV-associated neurocognitive disorders; cardiovascular complications	CD40L ELISA	
	MIF	 NVS-2 Patent no. WO 2006/045505 A1	Tumor progression; systemic inflammation; atherosclerosis; Rheumatoid arthritis; Systemic lupus erythematosus	MIF ELISA Cell lines overexpressing MIF	Diet induced atherosclerosis in ApoE ^{-/-} mice

FIGURE 89 (Cont'd)

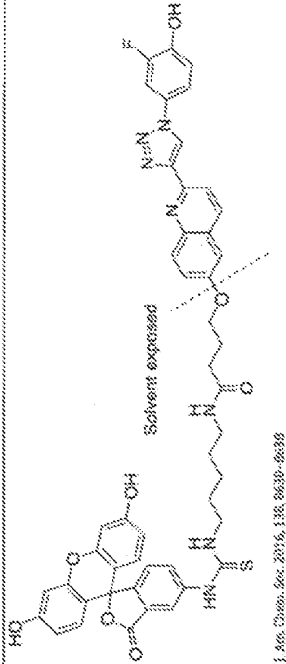
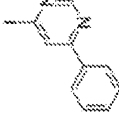
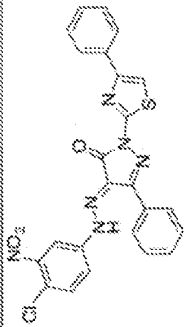
	 14m, Chem. Rev. 2016, 116, 8630-8638				
TNF- alpha	 4-IPP Patent WO 2011/038234 A2				
	 C97 Reference: J Biol Chem 2014, 289 (18), 12437-46.	Rheumatoid arthritis; inflammatory bowel disease; graft-vs-host disease; ankylosing spondylitis; psoriasis; hidradenitis suppurativa; refractory asthma; systemic lupus erythematosus	TNF-alpha ELISA; ; Cell lines overexpressing TNF-alpha;	Tg197 transgenic mouse model	

FIGURE 89 (Cont'd)

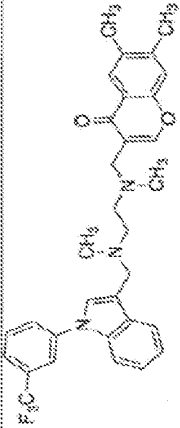
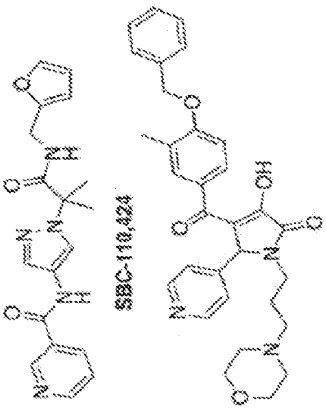
	 SP307 Science 310, 1022-1025. YCHSOYLCY (Disulfide bridge: 2 - 8) WP9QY Nat Biotechnol. 1997 Nov;15(12):1266-70.				
PCSK-9	 SBC-110,424 SBC-110,076 Reference: Patent WO 2016/040385 A1 Pep2-8 TVFTSWEEYLDWY Reference: J Biol Chem. 2014 Jan 10;289(2):942-55		High blood cholesterol; cardiovascular disease	Rescue of LDLR level of HepG2 cell lines	Cholesterol regulation in PCSK9 mice

FIGURE 89 (Cont'd)

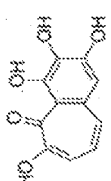
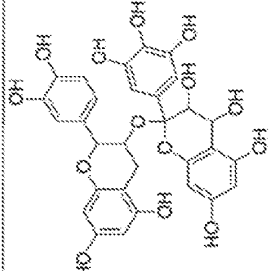
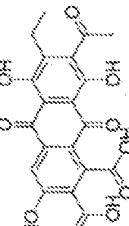
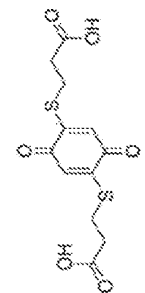
VEGF	 IC50 = 1.1 uM	 IC50 = 0.33 uM	Cancer angiogenesis; neurodegenerative disorders; diabetic retinopathy	Inhibition of VEGF promoted proliferation of HUVEC cells	LNMB3 lung carcinoma human xenograph in immunodeficient mice
	 IC50 = 3.6 uM	 IC50 = 5 uM			
TGF-beta	v114 KRFK peptide (J. Biol. Chem., Vol. 274, No. 19, pp. 13585-13593, 1999) Biochemistry 1998, 37, 17754-17764			Inhibition of TGF-beta stimulated growth of NRK fibroblasts	TGF-beta transgenic mice

FIGURE 89 (Cont'd)

	Chemical structure of LSKL peptide (nsc 119915). It features a central benzene ring with a carboxylic acid group (-COOH) at the top, a hydroxyl group (-OH) at the bottom, and a side chain at the right. The side chain consists of a methylene group (-CH2-) connected to a benzene ring, which is further connected to a hydroxyl group (-OH). The entire molecule is labeled nsc 119915.	Medical Oncology, 2008, col 23, 553-562			
TSP-1	LSKL peptide (J. Biol. Chem., Vol. 274, No. 19, pp. 13586-13593, 1999)	Activation of latent TGF-beta		Inhibition of TSP-1 mediated activation of recombinant latent TGF-beta	LL2 lung tumor model in C57BL/6 mice
IL-17		Psoriasis; rheumatoid arthritis; inflammatory bowel disease; multiple sclerosis; asthma			
Soluble uPAR	Chemical structure of Soluble uPAR. It features a central benzene ring with a carboxylic acid group (-COOH) at the top, a hydroxyl group (-OH) at the bottom, and a side chain at the right. The side chain consists of a methylene group (-CH2-) connected to a benzene ring, which is further connected to a hydroxyl group (-OH). The entire molecule is labeled Substructure of ARM-U2.	Cancer therapy resistance; cancer angiogenesis		uPAR ELISA/Western blot	Synergy with ARM-U2 in tumor growth inhibition in a B16 mouse melanoma allograft model expressing

FIGURE 39 (Cont'd)

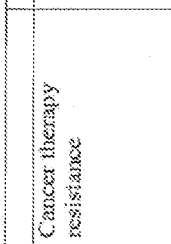
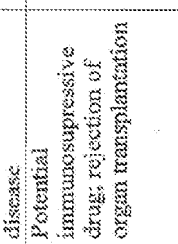
Soluble PSMA	 alkaline urea J. AM. CHEM. SOC. 2003, 125, 17390-17392	Cancer therapy resistance	PSMA enzyme activity/ELIS A/Western blot	human uPAR
IL-1	Rheumatoid arthritis; inflammatory bowel disease; graft-vs.-host disease; heart disease	Thrombosis; hypercoagulation; Rheumatoid arthritis; cancer progression and metastasis	Inhibition of T cell proliferation	human uPAR
IL-2	 Compound 13 J. AM. CHEM. SOC. 2003, 125, 3714-3715	Potential immunosuppressive drug; rejection of organ transplantation	Inhibition of T cell proliferation	human uPAR
IL-6	Thrombosis; hypercoagulation; Rheumatoid arthritis; cancer progression and metastasis	Thrombosis; hypercoagulation; Rheumatoid arthritis; cancer progression and metastasis	Inhibition of T cell proliferation	human uPAR
IL-	Colorectal cancer	Colorectal cancer	Inhibition of T cell proliferation	human uPAR

FIGURE 89 (Cont'd)

8/CXC L-8				cystic fibrosis; soriasis; gingivitis		
IL-12				Autoimmune diseases		
IL-13				Allergic lung disease; Progression of parasite Schistosoma		
CXCL- 1				mansonii infection Cancer, inflammation, angiogenesis		
CXCL- 2				Cancer, inflammation, angiogenesis		
CXCL- 3				Atherosclerosis; multiple sclerosis; pulmonary fibrosis; type 1 diabetes; autoimmune myasthenia gravis; nephrotic nephritis; acute cardiac allograft rejection		
CXCL- 4				Systemic sclerosis		
CXCL- 10				Infectious diseases; chronic		

FIGURE 89 (Cont'd)

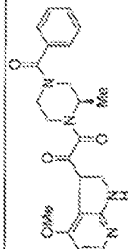
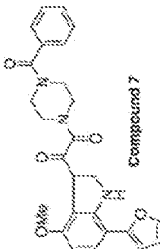
	CXCL-12			inflammation; immune dysfunction; tumor development; metastasis and dissemination	
	IgG	DCAWHLGELVWCT Fc-III Scienoa, 2000, vol 287, 18, pp 1279		Cancer metastasis	
Bacteria as virulent factors	Hemolysins; cytolysins		Autoimmune diseases like systemic lupus erythematosus	IgG ELISA/Western blot	
Virus	HIV (gp120)	 BR03-378808	Bacteria infections		
		 Compound 7			
		Chem. Sci., 2014, 5, 2311-2317			
	Dengue	Molecules targeting E protein, capsid protein		Dengue fever	

FIGURE 90

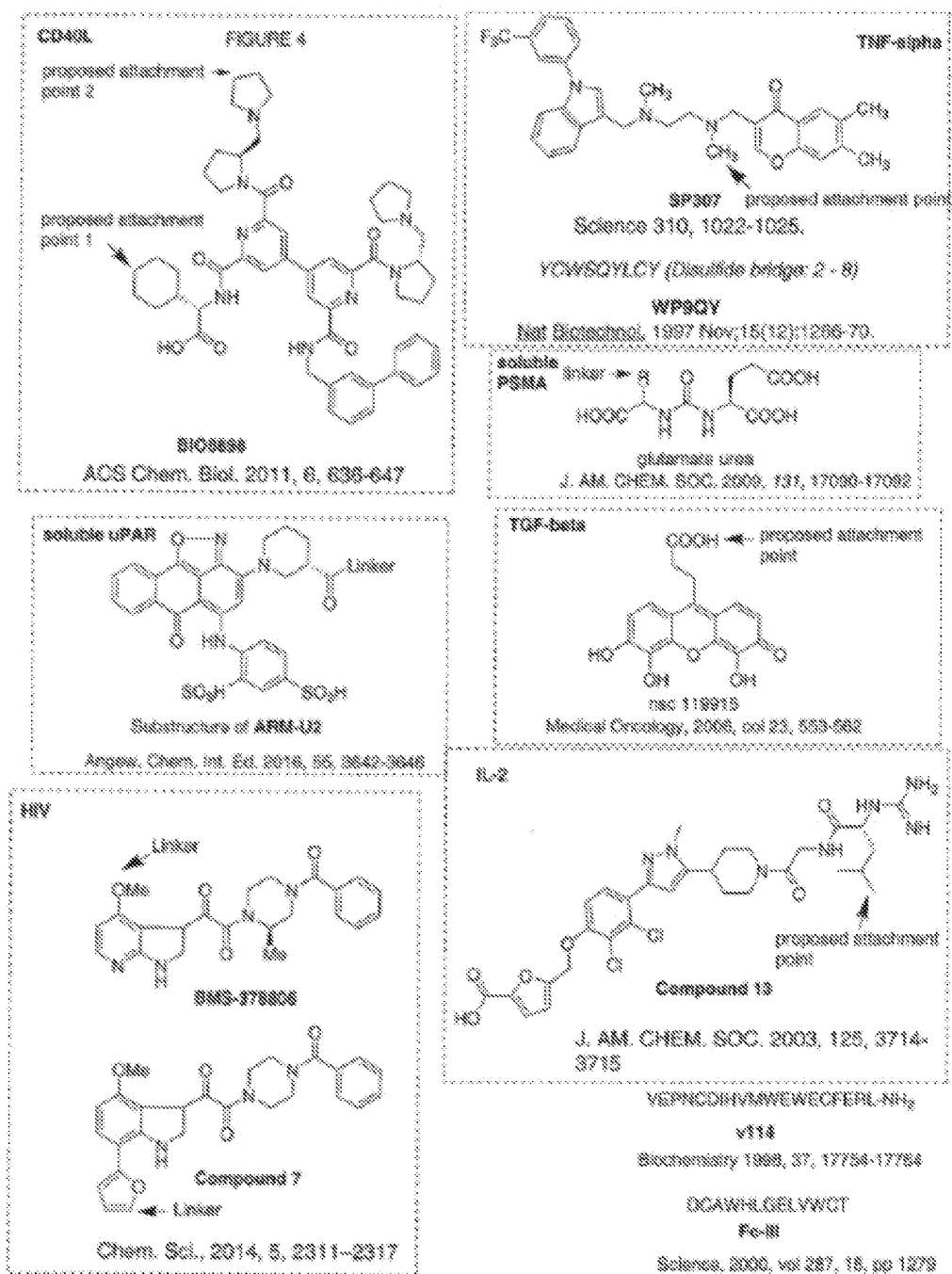


FIGURE 90 (Cont'd)

