

## PCT Recordation of Search History

Case/PCT Application Number: PCT/US15/00313

CLIN Number/Technical Field of PCT Application: 0007 BIOTECHNOLOGY

Date(s) During Which the Search was Conducted: 19 January – 13 February 2017

Date of Completion of Recordation of Search History Form: 13 February 2017

Research Analyst Initials: EJK

Search Approval Official (SAO) Initials: DGF

### Field of Search/Classification Information:

IPC(8) Classifications: A61K 39/00, 38/16, 38/17; C12P 21/02; C07K 14/435 (2017.01)

CPC Classifications: A61K 38/1735, 38/1703, 38/1709, 38/02, 39/00; C07K 14/4727, 14/435

### Databases Searched (Patent and Non-Patent Literature (NPL), Including Sub-Databases and Files Searched) and Search Terms Used:

Patseer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC, RU, AT, CH, TH, BR, PH); Lens.org; ENA; Pubmed; NCBI Blast; EBSCO; Google Scholar:

Terms: MUC1, tandem, repeat, peptide, decoy, prevent, treat, bacteria, infect, ectodomain, desialyated, deglycosylated, GSTAPPAHGVTSAPDTRPAP



L73	TAC:(deglycosylated and muc_1 and peptide and administ* and infect* and tandem)	5	2-Feb-17
L72	TAC:((muc_1 OR (membrane* W10 protein) OR(cell surface associat*) OR HuPAM4) AND (decoy peptid* OR tandem repeat* or ectodomain) AND Desialylat* AND DEGLYCOSYL* AND (bacteri* infect*) OR (P aeruginosa OR H pylori OR C jejuni OR E coli OR S enterica OR B cenocepacia OR B pseudomallei OR S maltophilia OR L pneumophila OR B bronchiseptica OR Enterobacter spp. OR N gonorrhoeae OR B cereus OR B subtilis ))	2	2-Feb-17
L71	TAC:((muc_1 OR (membrane* W10 protein) OR(cell surface associat*) OR HuPAM4) AND (decoy peptid* OR tandem repeat* or ectodomain) AND Desialylat* AND DEGLYCOSYL* AND Therap* AND (bacteri* infect*) OR (P aeruginosa OR H pylori OR C jejuni OR E coli OR S enterica OR B cenocepacia OR B pseudomallei OR S maltophilia OR L pneumophila OR B bronchiseptica OR Enterobacter spp. OR N gonorrhoeae OR B cereus OR B subtilis ))	2	2-Feb-17
L70	TAC:((MUC1 AND decoy AND peptide) AND (desialylat* OR ASIALYAT* OR deglycosylat*))	3	31-Jan-17
L65	TAC:(deglycosylated and muc_1 and peptide and administ* and infect* and tandem)	5	26-Jan-17
L64	TAC:(ectodomain and MUCI and decoy and peptide)	1	26-Jan-17
L63	TAC:(ectodomain WS MUCI and peptide)	3	26-Jan-17
L62	TAC:((MUC_1 AND TANDEM) AND (ectodomain OR peptide OR PSEUDOMONAS) AND (five AND MUC1 AND repeats) AND ADMINIST* AND INFECT*)	5	26-Jan-17
L61	TAC:((MUC_1 AND TANDEM) AND (ectodomain OR peptide OR PSEUDOMONAS) AND (five AND MUC1 AND repeats) AND ADMINIST* AND INFECT*)	3	26-Jan-17
L60	INV:(LILLEHOJ OR VERCELES OR GOLDBLUM) AND TAC:(MUC1)	1	20-Jan-17
L59	INV:(LILLEHOJ) AND TAC:(MUC1)	1	20-Jan-17
L58	INV:(LILLEHOJ)	60	20-Jan-17
L57	INV:(LILLEHOJ AND VERCELES AND GOLDBLUM)	1	20-Jan-17
L56	TAC:((MUC1 decoy peptides) OR (SEQUENCE VARIANT) AND (tandem repeat peptides))	1	20-Jan-17
L55	TACD:(pseudo* AND (shed MUC* ectodomain) AND infection and decoy)	1	20-Jan-17
L54	TACD:(pseudo* AND (shed MUC* ectodomain) AND infection and decoy)	1	20-Jan-17
L53	TACD:(pseudo* AND (shed MUC ectodomain) AND infection and decoy)	0	20-Jan-17
L52	TACD:(pseudomonas and (shed MUC ectodomain) and infection and decoy)	0	20-Jan-17
L51	TACD:(pseudomonas and (shed MUCI ectodomain) and infection and decoy)	0	20-Jan-17
L50	TACD:(pseudomonas and shed and MUC* and ectodomain and infection and decoy)	23	20-Jan-17
L49	TACD:(pseudomonas and shed and MUC* and ectodomain and infection and decoy)	88	20-Jan-17
L48	TACD:(pseudomonas and shed and MUC and ectodomain and infection and decoy)	17	20-Jan-17
L47	TACD:(pseudomonas shed MUC ectodomain infection decoy)	0	20-Jan-17
L46	TAC:(pseudomonas shed MUC ectodomain infection decoy)	0	20-Jan-17
L45	TAC:(pseudomonas shed MUC ectodomain treating infection decoy)	0	20-Jan-17
L44	TAC:(pseudomonas shed MUCI ectodomain treating infection decoy)	0	20-Jan-17
L43	TAC:(pseudomonas shed MUCI ectodomain treating infection decoy)	0	20-Jan-17
L38	TAC:((MUC1 decoy peptides) OR (SEQUENCE VARIANT) AND (tandem repeat peptides))	1	20-Jan-17

L37	TAC:((MUC1 decoy peptides) OR (SEQUENCE VARIANT) AND (MUC1 tandem repeat peptides))	0	20-Jan-17
L36	TAC:(MUC1 DECOY PEPTIDES FOR TREATMENT AND PREVENTION OF BACTERIAL INFECTIONS)	1	20-Jan-17
L35	TAC:(((MUC1 AND decoy AND peptides) AND (repeat peptides) AND (amino acids) ))	0	20-Jan-17
L34	TAC:(((MUCI AND decoy AND peptides) AND (repeat peptides) AND (amino acids) ))	0	20-Jan-17
L33	TAC:(((MUCI AND decoy AND peptides) AND (repeat peptides) AND (contiguous amino acids) ))	0	20-Jan-17
L32	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (contiguous amino acids) ))	0	20-Jan-17
L31	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (15 contiguous amino acids) ))	0	20-Jan-17
L30	TAC:(((MUCI AND peptides) AND (tandem repeat peptides) AND (15 contiguous amino acids) AND desialylated AND deglycosylated AND ectodomain))	0	20-Jan-17
L29	INV:(Jeon AND Kwang AND MUC1)	0	20-Jan-17
L28	INV:(Jeon AND Kwang)	2204	20-Jan-17
L27	INV:(Jeon OR Kwang)	126337	20-Jan-17
L26	TAC:(((MUCI AND decoy AND peptides)))	3	20-Jan-17
L25	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides)))	0	20-Jan-17
L24	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (contiguous amino acids)))	0	20-Jan-17
L23	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (15 contiguous amino acids)))	0	20-Jan-17
L22	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (15 contiguous amino acids) AND desialylated AND deglycosylated AND ectodomain))	0	20-Jan-17
L21	TAC:(((MUCI AND decoy AND peptides) AND (tandem repeat peptides) AND (15 contiguous amino acids) AND desialylated AND deglycosylated AND ectodomain))	0	20-Jan-17
L20	TAC:(GSTAPPAHGVTSAPDTRPAP OR muc1 OR protein)	456809	20-Jan-17
L19	TAC:(GSTAPPAHGVTSAPDTRPAP OR muc1 + protein)	67	20-Jan-17
L18	TAC:(GSTAPPAHGVTSAPDTRPAP OR muc1)	1146	20-Jan-17
L17	TAC:(GSTAPPAHGVTSAPDTRPAP + muc1)	0	20-Jan-17
L16	TAC:(GSTAPPAHGVTSAPDTRPAP + muc1 + tandem)	0	20-Jan-17
L15	TAC:(GSTAPPAHGVTSAPDTRPAP + muc1 +tandem)	0	20-Jan-17
L14	TAC:(muc1 OR GSTAPPAHGVTSAPDTRPAP + mucin)	1145	20-Jan-17
L13	D:(GSTAPPAHGVTSAPDTRPAP)	17	20-Jan-17
L12	D:(GSTAPPAHGVTSAPDTRPAP)	60	20-Jan-17
L11	TAC:(MUC1 AND BACTER* AND DECOY AND PEPTIDE*)	6	19-Jan-17
L10	TAC:(MUC1 AND BACTER* AND DECOY AND PEPTIDE8)	0	19-Jan-17
L9	TAC:(MUC1 AND BACTER* AND DECOY)	12	19-Jan-17
L8	TAC:(MUC1 AND BACTER*)	663	19-Jan-17
L6	TAC:(MUC1 AND BACTER*) AND INV:(PHILLIPS)	0	19-Jan-17
L4	TAC:(GSTAPPAHGVTSAPDTRPAP)	2	20-Jan-17
L3	TAC:(GSTAPPAHGVTSAPDTRPAP)	10	19-Jan-17
L2	INV:(LILLEHOJ AND VERCELES AND GOLDBLUM)	1	19-Jan-17
L1	TAC:(DECOY PEPTIDES FOR TREATMENT AND PREVENTION OF BACTERIAL INFECTIONS)	1	19-Jan-17

**Non-Patent Literature Search (NPL)****Google Scholar: 19 January to 2 February 2017**

Search	Results
treat or prevent bacteria infect using mucin or muc1	5,650
administering muc1 for prevention or treatment and GSTAPPAHGVTSAPDTRPAP and bacteria	12
MUC1 AND (TREAT OR PREVENT) AND BACTERIA AND INFECT AND DECOY AND ADMINISTER	502

**NCBI BLAST: 19 January to 2 February 2017**

Search	Results
GSTAPPAHGVTSAPDTRPAP	20/20 Identities
MTPGTQSPFFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSSVPSSTEKNAVSM TSSVLSSHSPGSGSSTTQGQDVT LAPATEPASGSAATWGQDVT SVPVTRPALGST TPPAHDVTSAPDNKPAPXRATTPASKSTPFSIPSHHSDTPTTLASHSTKTDASSTH HSTVPPLTSSNHSTSPQLSTGVSFFFLSFHISNLQFNSSLEDPSTDYYQELQRDISE MFLQIYKQGGFLGLSNIKFRPG (SEQ ID NO: 2)	No 100% matches
MTPGTQSPFFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSSVPSSTEKNAVSM TSSVLSSHSPGSGSSTTQGQDVT LAPATEPASGSAATWGQDVT SVPVTRPALGST TPPAHDVTSAPDNKPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRP APGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAP DTRPAPGSTAPPAHGVTSAPDNRPALGSTAPPVHNVT SASGSASGSASTLVHNG TSARATTPASKSTPFSIPSHHSDTPTTLASHSTKTDASSTHHSTVPPLTSSNHSTS PQLSTGVSFFFLSFHISNLQFNSSLEDPSTDYYQELQRDISEMFLQIYKQGGFLGLS NIKFRPG (SEQ ID NO: 2 with X replaced with 5 MUC1 repeats of SEQ ID NO: 1)	No 100% matches
MTPGTQSPFFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSSVPSSTEKNAVSM TSSVLSSHSPGSGSSTTQGQDVT LAPATEPASGSAATWGQDVT SVPVTRPALGST TPPAHDVTSAPDNKPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRP APGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAP DTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAH GVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGST APPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRP APGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAPDTRPAPGSTAPPAHGVTSAP DNRPALGSTAPPVHNVT SASGSASGSASTLVHNGTSARATTPASKSTPFSIPSH HSDTPTTLASHSTKTDASSTHHSTVPPLTSSNHSTSPQLSTGVSFFFLSFHISNLQF NSSLEDPSTDYYQELQRDISEMFLQIYKQGGFLGLSNIKFRPG (SEQ ID NO: 3)	No 100% matches

**EBSCO: 19 January to 13 February 2017**

Search Terms	Results
GSTAPPAHGVTSAPDTRPAP AND TREAT OR PREVENT AND INFECT	719,835
treat and prevent and bacteria and infect and mucin or muc1	62,105
MUC1 AND (TREAT OR PREVENT) AND BACTERIA AND INFECT AND DECOY AND ADMINISTER	355