

EXHIBIT 3



(12) **United States Patent**
Jensen

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(54) **USE OF LONG-ACTING GLP-1 PEPTIDES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

DK	WO 2006097537	A2	*	9/2006	C07K 14/605
RU	2409349	C2		1/2011		
RU	2413530	C2		3/2011		
WO	2010/092163	A2		8/2010		
WO	2011/080103	A1		7/2011		
WO	2011/138421	A1		11/2011		
WO	2012/016419	A1		2/2012		
WO	2012080471	A1		6/2012		
WO	2012107476	A1		8/2012		
WO	2012/130136	A1		10/2012		
WO	2012/136790	A1		10/2012		
WO	2012177929	A2		12/2012		

OTHER PUBLICATIONS

Kim et al., "Effects of once-weekly dosing of a long-acting release formulation of exenatide on glucose control and body weight in subjects with type 2 diabetes," *Diabetes Care* 30:1487-1493 (2007).*

Bydureon NDA 022200/S-008 package information, pp. 1-179 (Feb. 2014).*

Clinical Trial NCT00696657, entitled "A Randomised Controlled Clinical Trial in Type 2 Diabetes Comparing Semaglutide to Placebo and Liraglutide," pp. 1-5 (Mar. 11, 2015)—accessed Sep. 24, 2015 at URL clinicaltrials.gov/archive/NCT00696657/2011_03_25.*

Lau et al., "Discovery of the once-weekly glucagon-like peptide-1 (GLP-1) analogue semaglutide," *J. Med. Chem.* 58:7370-7380 (2015).*

Eperzan assessment report, Euro. Med. Agency, pp. 1-124 (2014)—accessed Sep. 24, 2015 at URL: ema.europa.eu/docs/en_GB/document_library/EPAR_-_Public_assessment_report/human/002735/WC500165119.pdf.*

Trulicity assessment report, Euro. Med. Agency, pp. 1-172 (2014)—accessed Sep. 24, 2015 at URL: ema.europa.eu/docs/en_GB/document_library/EPAR_-_Public_assessment_report/human/002825/WC500179473.pdf.*

CDC, "Nathional Health and Nutrition Examination Survey: Healthy weight, overweight, and obesity among U.S. adults," 03-0260, pp. 1-2 (Jul. 2003) accessed May 10, 2016 at URL cdc.gov/nchs/data/nhanes/databriefs/adultweight.pdf.*

Madsbad S et al. An Overview of once-weekly glucagon-like peptide-1 receptor agonists available efficacy and safety data and perspectives for the future, *Diabetes, Obesity and Metabolism Year 2011*, vol. 13, No. 5, pp. 394-407.

Buse B. J. et al., Exenatide once weekly versus liraglutide once daily in patients with type 2 diabetes (DURATION-6): a randomised, open-label study, *Lancet*, 2013, vol. 381, pp. 117-124.

Mizuta et al. "The Role for GLP-1 in Regulation of Body Weight." *Progress in Medicine* 2008 vol. 28 No. 8 pp. 1909-1912.

* cited by examiner

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(57) **ABSTRACT**

The invention relates to use of long-acting GLP-1 peptides in certain dosage regimes for the treatment of type 2 diabetes, obesity, etc.

6 Claims, 6 Drawing Sheets

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§ 371 (c)(1),

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**

A61K 38/26	(2006.01)
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A61P 3/04	(2006.01)
A61P 3/10	(2006.01)

(52) **U.S. Cl.**

CPC **A61K 38/26** (2013.01)

(58) **Field of Classification Search**

None
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

8,129,343	B2	3/2012	Lau et al.
8,536,122	B2	9/2013	Lau et al.
2010/0047762	A1	2/2010	Button et al.
2010/0292133	A1	11/2010	Spetzler et al.
2011/0301080	A1	12/2011	Bush et al.

FOREIGN PATENT DOCUMENTS

CN	102229668	11/2011
CN	102229668 A	11/2011

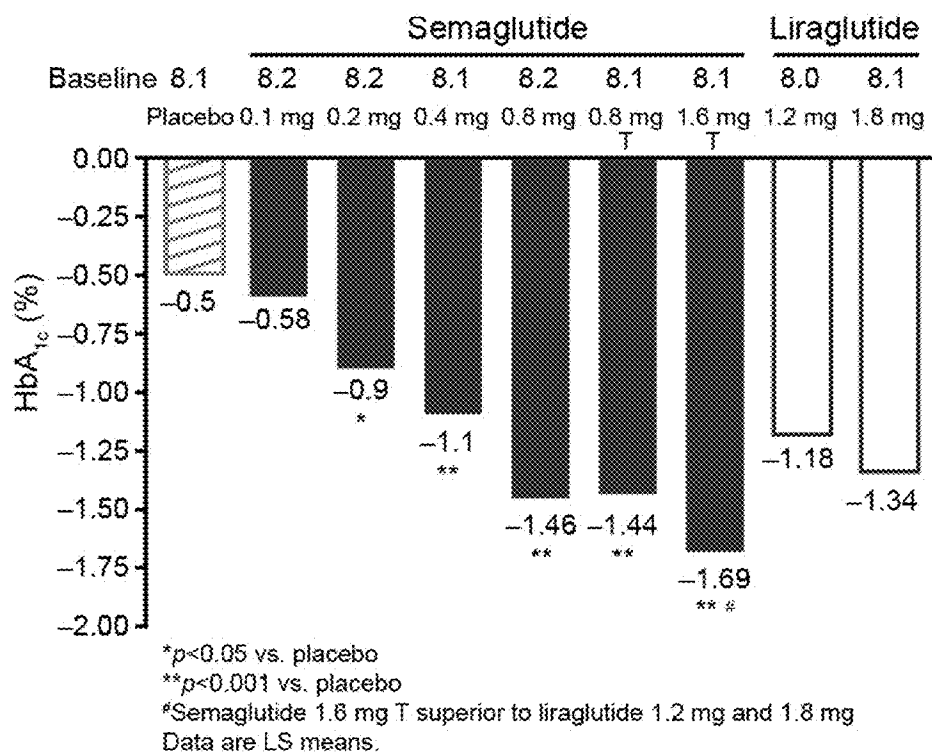


Fig. 1

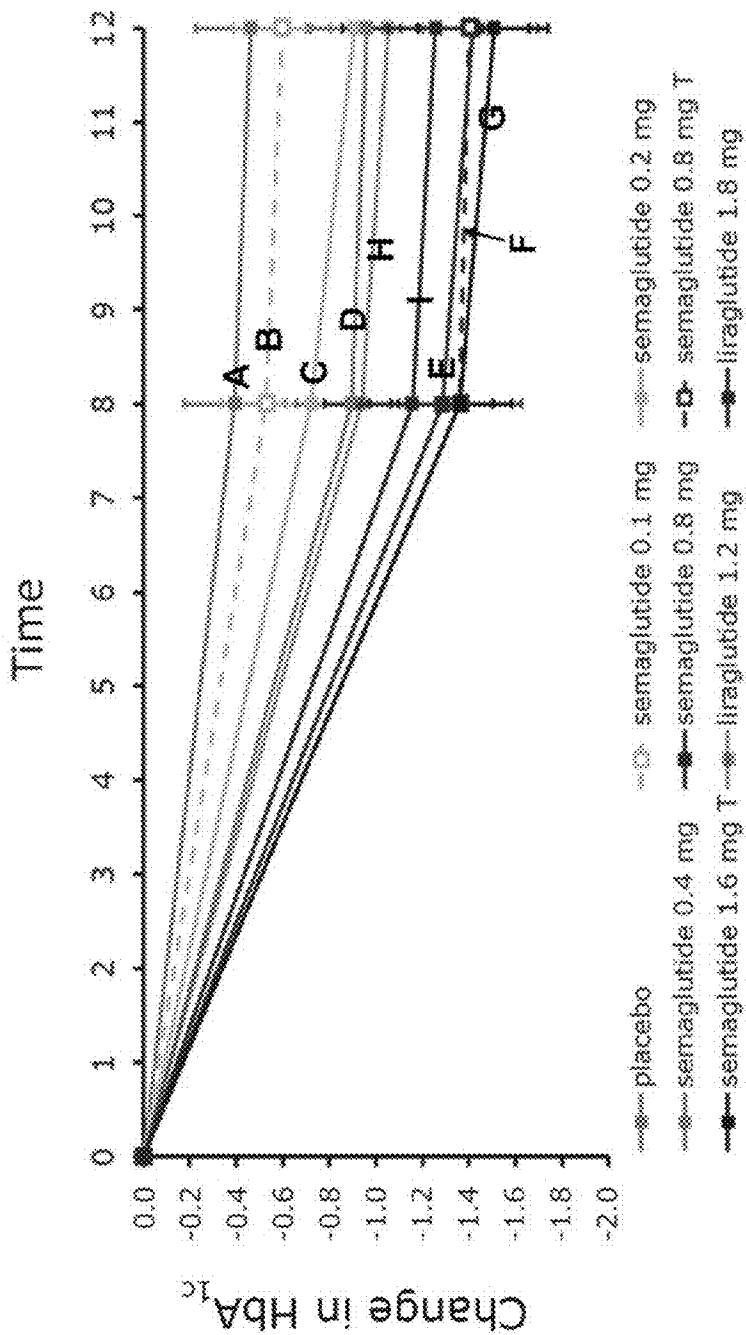


Fig. 2

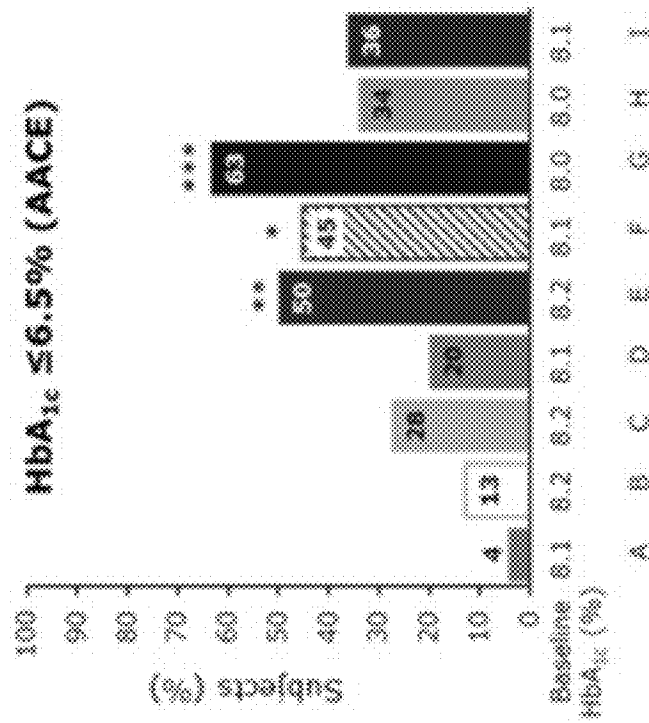


Fig. 3A

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