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Van Eelen

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(54) **INDUSTRIAL PRODUCTION OF MEAT USING CELL CULTURE METHODS**

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(51) **Int. Cl.**

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(58) **Field of Classification Search** ..... None
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,624,840	A	4/1997	Naughton et al.
6,835,390	B1	12/2004	Vein
2005/0084958	A1	4/2005	Vein

FOREIGN PATENT DOCUMENTS

GB	1 433 841	4/1976
JP	2002-191326	7/2002
WO	94/08598	4/1994
WO	94/28738	12/1994
WO	96/40889	12/1996

OTHER PUBLICATIONS

Chromiak et al., In Vitro Cellular & Developmental Biology Animal 34 (9) : 694-703 (Oct. 1998).
Yamamoto et al., Retardation of Phenotypic Transition of Rabbit Arterial Smooth Muscle Cells in Three-Dimensional Primar Culture, Experimental Cell Research 225(1): 12-21(1996).
Molnar et al., "Skeletal Muscle Satellite Cells Cultured in Simulated Microgravity", In Vitro Cellular and Developmental Biology Animal 33(5): 386-391 (May 1997).

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(57) **ABSTRACT**

A meat product containing in vitro produced animal cells in a three dimensional form and a method for producing the meat product.

5 Claims, No Drawings