

세계시장에서의 기능성 식품과 향후 전망

Functional Foods in International Market and Its Prospects

30

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Abstract

Nutraceuticals link nutrition with medicine. They cover dietary supplements, functional foods, and medical foods. The definition of functional foods is the foods that promote health and possibly prevention and curing of certain diseases, in addition to basic nutritional supplementation. This concept is becoming popular with consumers because of a heightened awareness of the link between health and food and nutrition. Food manufacturers and pharmaceutical companies are enthusiastic about developing functional foods because their global market is growing very rapidly. In this article the authors overview the trends and current developments in the markets of functional foods, especially of USA, Europe, Japan, and Korea. The market shares of USA, Europe, and Japan cover more than 85% of the world functional food market. Dietary supplements including vitamin/minerals, herb and phytochemicals also keep growing. We expect a variety of functional foods will play an important role to promote the human health and to create new medical markets in the future.

Keywords : Functional foods; Global market; Prospect of functional food

핵심 용어 : ; ;

(1).

designer food	nutraceu-
cals, medicinal food, pharma food	medical food

(2).

1 가 , 2
가 , 3

(1).

(3).

1.

()	
(80)	
(43)	
(70)	
(4.4)	<i>L. acidophilus</i> , <i>L. casei</i>
(5)	
(60)	psyllium
(30)	soy 7† - 3,
(33)	
(35)	flaxseed
(37)	Fat burners
(83)	
65%	Valerian, Tryptophan
	Isoflavone, lycopene

, 2001

1.

(IFT)가

Kellogg 가,

' NCI cereal

가	1990 10	가 ' Nutrition
Labeling and Education Act '		11

, 1993 1

. 1993 7 (,

99 445

, NBJ(Nutrition Business Journal, 2000)

35% 가 , 33%,

가 (7).

18%

가

85%

가,

(5, 6).

2.

		가	81%,	가
	75%	.		
			phytochemicals	
phytochemicals		가		
		가		
	가	OTC		
10			(19	25%),
	10			
			phytoestrogen	

. 2003

1 . glucosamine, chondroitin sulfate,
가 가 Coenzyme Q10, Methylsulfonyl methane(MSM)
. Glucosamine

(5).

30%가 2,000 13
가 Echineacea(
, St. Johns wort(
), Gingko biloba(
,), Garlic(
,), Saw palmetto(
,), Ginseng(
, ,), tin sulfate
Goldenseal(
,), aloe(
,), Siberean ginseng(
,), Valerian(
Coenzyme Q10 lipophilic
,) specialty supplement MSM

, , , , ,
 , , , , ,
(5).
 . , . ,
 . 가 ,
 .
가
가 FDA
가

3. (1 = , 10 =)

Condition	England	France	Germany
Obesity	8.2	8.4	8.9
Tooth decay	8.3	8.3	8.4
Raised cholesterol levels	7.7	8.1	8.7
Bowel disease	7.2	7.3	8.5
Heart disease	7.1	7.4	6.0
High blood pressure	6.9	7.1	7.3
Stomach/colon cancer	4.6	6.1	3.9
Diabetes	4.3	6.9	4.6
Premenstrual syndrome	4.6	5.6	4.1
Migraine	5.2	5.1	3.7
Arthritis	4.1	4.9	5.0
Memory decline	3.3	5.6	3.6

Hilliam M. Int. Dairy Journal, 1998

,
가
 . 가
 . . .
 ,
가
가 medical condition 가

(9).
2 (8).
가
 , , , , ,
 . , , , , ,
50% 가 , 가,
 , , , , ,
가 (9).

4.

, apoptosis,

, biomarker

DNA,

in vivo

ex vivo

가,

가

가

가,

가,

가

가

(

), ()

. 2003

1

가

가

6가

(5, 12). 2001

4 (8).

(5).

3.

1980

1991

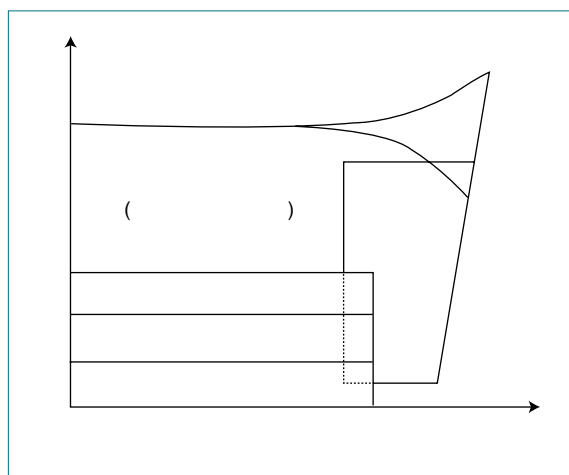
2001

dietary supplement

dietary sup-

plement

(12).



2004

1.

가

4.

가
가
가
(351),
(685), (111), (142)
가
가
768
(147), (146),
가 (139), (60)
(5).

(13).

100

가,
C가 3

5 (14).

가

가 1999

(OTC)

coen- 825

가 30%

zyme Q10,

가

가

1 153

Product Description	Claims
Dietary Supplement	
• Cardia (salt alternative)	Lowers blood pressure
• Cholestin (lovastatin from red rice yeast)	Lowers cholesterol
• Lactoferrin (Lactoferrin sequesters iron, hampering microbial growth)	Antimicrobial for use in immunocompromised patients or premature infants
• Lysozyme (an antibacterial enzyme that attacks cell walls)	Antimicrobial for use in immunocompromised patients or premature infants
• Neuromins or SeaGold (contains DHA)	Lowers heart disease risk
Functional Food	
• Formulaid (infant formula supplement contains algae - and fungi - derived fatty acids DHA and ARA)	Enhances neurological and visual development in infants
• Laurical (canola oil engineered to be high in laurate)	Lowers cholesterol
• Ostar (beta - glucan derived from oat)	Aids in control of blood glucose
• Soybean and canola oils engineered without trans fatty acids	Lowers heart disease risk
• Phytrol (plant - derived sterol FCP)	Lowers heart disease risk
• Proventra(Kefir supplemented with bovine polyclonal antibodies)	Boosts immune function
• Benecol margarine (contains stanol)	Reduces absorption of cholesterol in gut
Medical Food	
• NiteBite (time - release glucose snack bar for diabetics)	Prevents nocturnal hypoglycemia
• Nutritional drink for diabetics (plant - derived insulin)	Potentiating factor that aids insulin
• Bile - salt stimulated lipase (breaks down lipids in gut)	For CF patients and newborns

Kramer K, et al. Nutraceuticals in health and disease prevention. 2001

가 , 93 2 , . . (10).

50 3, 4, 5 ,

가 46 6 , 가 45 7 , 27

8 . .

6.

	가	가	가	• (ROS: Reactive oxygen species, RNS: Reactive nitrogen species)
	가			• ()
	가	가		• ,
				• ,
	()	가		• OTC 가 ,
				• (,)
				• (,)
				• ,

. 2003

in vitro, in vivo

6 (8).

가 ,

2500

가 가

가

가

phytochemical

가



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Peer Reviewer Commentary

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