

Bioethische Aspekte des Stillens



Dr. Skadi Springer, IBCLC

Interdisziplinäre Fortbildungsveranstaltung
des Stillforums Leipzig e.V., 26.11.2008

Ethik -

„Lehre vom sittlichen Wollen und Handeln
der Menschen untereinander und
in Beziehung zur Gesellschaft“

Duden

Stillen ist selbst ein Indikator

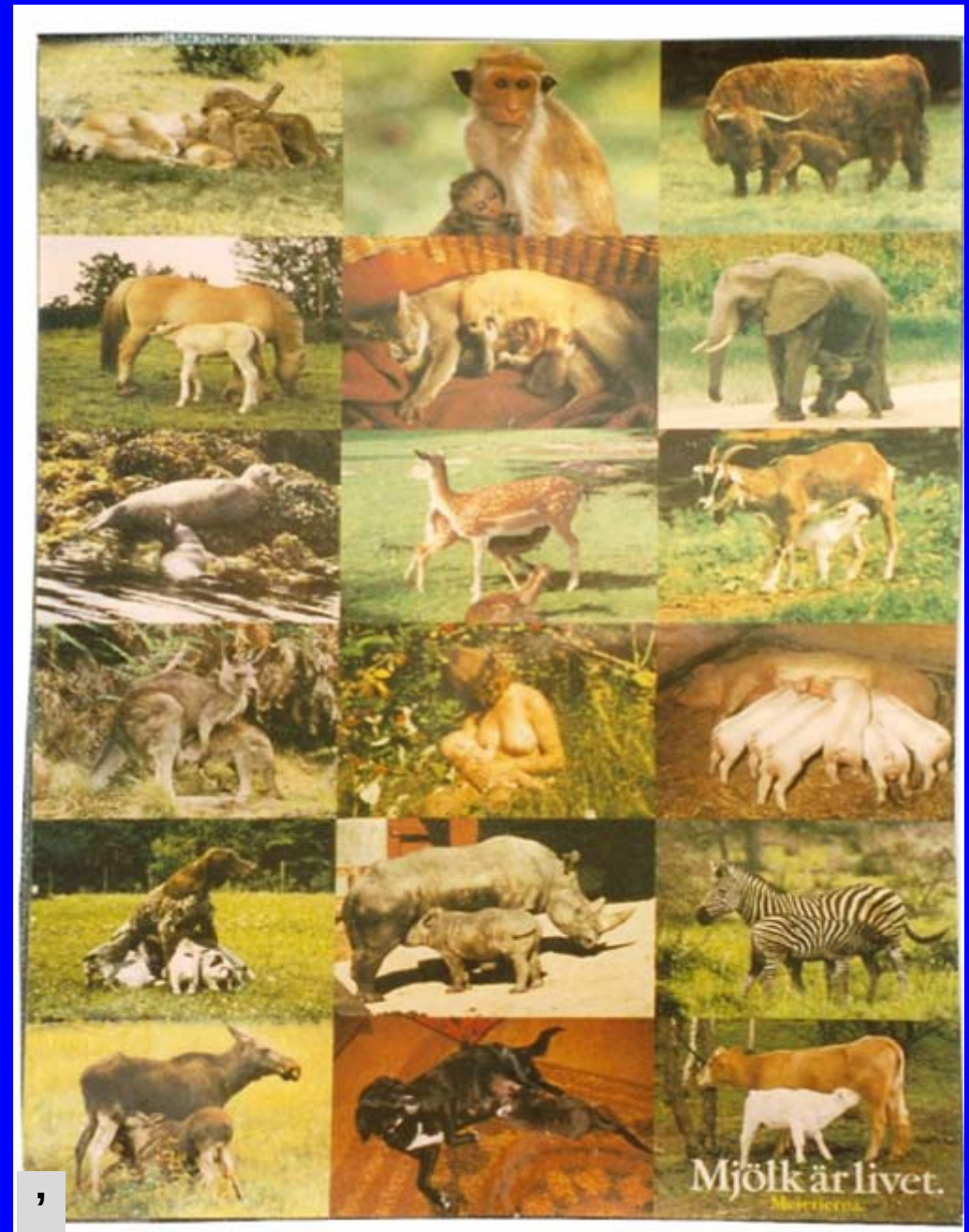
- für Gesundheit
- für eine gute Mutter-Kind-Beziehung
- für eine fürsorgliche Umgebung
- für ein günstiges Milieu

Bergmann, 1995



“Milch ist Leben”

für junge Säuger





Romulus



Remus

The legend that Romulus and Remus fed by a she-wolf is a myth. Latin word for she-wolf is "lupa", and lupa was also the term used for a female prostitute. It's much more probable that they were breastfed by a prostitute than by a she-wolf (**Rosellina Cosentino**)

Breastfeeding

Biocultural Perspectives



EDITORS

Patricia Stuart-Macadam

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Abstillalter in den USA und in traditionellen Kulturen

(Ross Labs, 1993)

Immunologische Vorteile des Stillens für ältere Kinder

Erst mit sechs Jahren ist das Immunsystem eines Kindes ausgereift

- 1 ml Muttermilch enthält ca. 4000 lebende Zellen
- die IgM-Spiegel steigen nach ca. sechs Monaten an
- der Lysozym-spiegel steigt bis ca. zum 25. Monat an und fällt erst dann ab
- der Laktoferrinspiegel steigt kontinuierlich an

(Lawrence 1999, Riordan 2005)

Langzeiteffekte der frühkindlichen Substratversorgung

Koletzko B

Metabolische Programmierung in sensiblen Phasen der Entwicklung hat Folgen für spätere Morbidität und Mortalität,

z.B. epidemiologischer Zusammenhang zwischen Säuglingsernährung und Allergieprävalenz, Infektionen, Diabetes mell., Morbus Crohn, malignen Lymphome, neurologischen Funktionen

Monatsschrift Kinderheilkunde Suppl 2 (1999) S 45

Langzeiteffekte des Stillens auf die Gesundheit der Mutter

- Schutz vor Karzinomen (Brust, Uterus, Ovar)

Dosiswirkung!

- Adipositas-Risiko sinkt, bessere Cholesterolverarbeitung

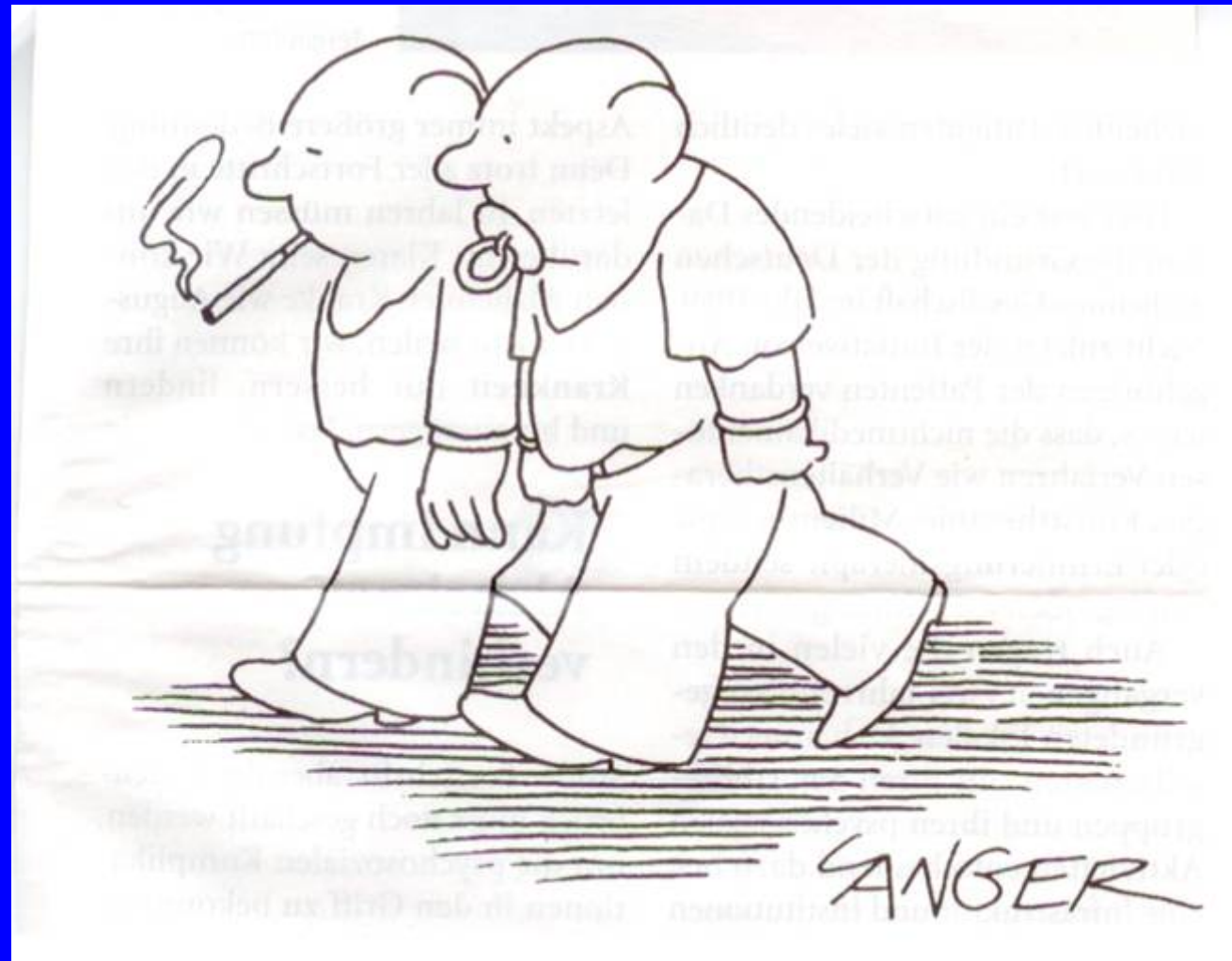
- Osteoporoserisiko sinkt

- Gesundes Essverhalten, ausgeglichene Befindlichkeit, positives Familienklima

- verbesserte Lern- und Gedächtnisleistung

Hartmann & Hale, 2007

Saugbedürfnisse befriedigen...Suchtprävention

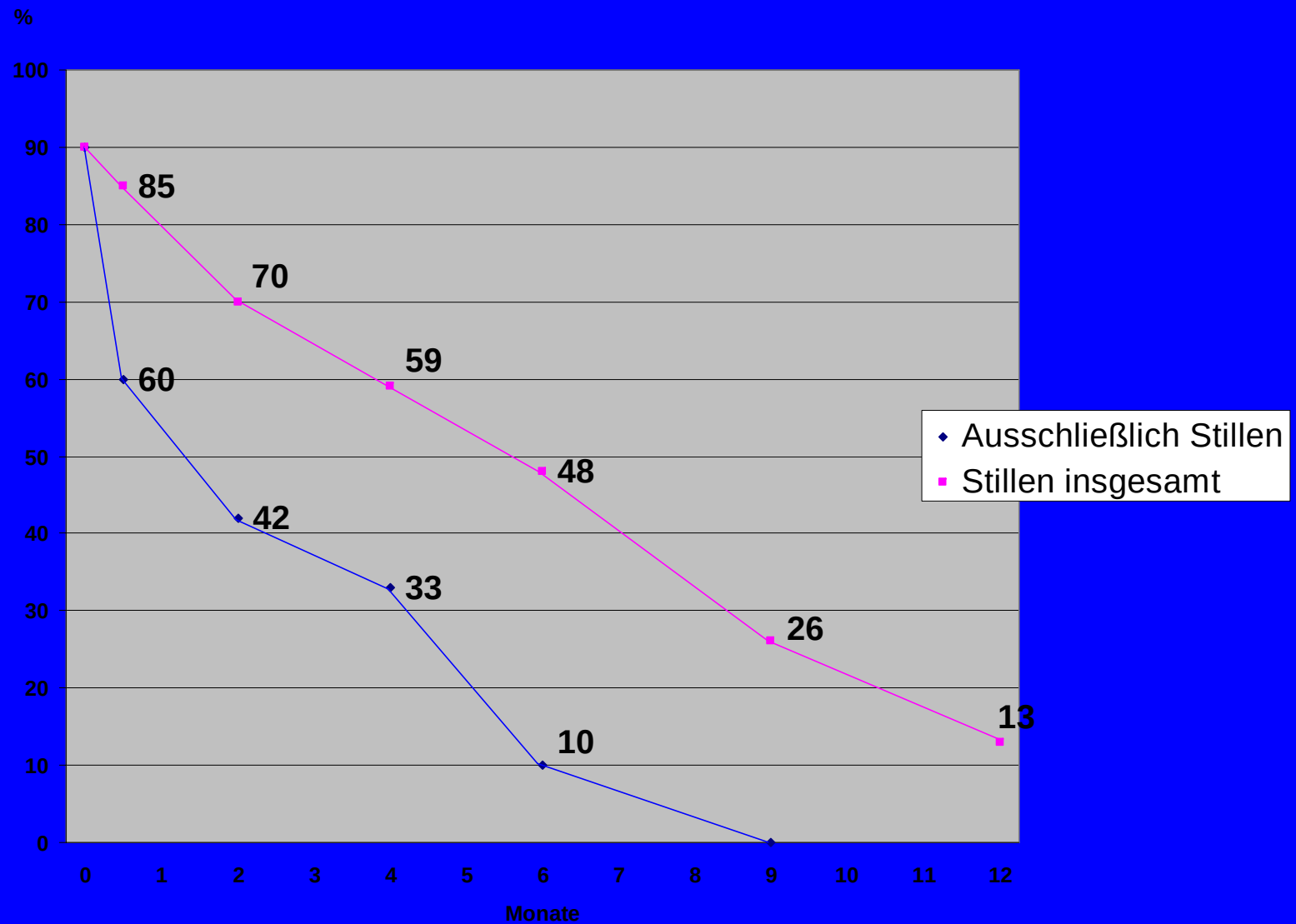


Empfehlungen zur Dauer der Stillzeit

„... das Stillen fördern und die es stillwilligen Müttern ermöglichen, ihre Säuglinge 6 Monate ausschließlich zu stillen, und bei geeigneter ausreichender Beikost solange Mutter und Kind es wünschen...“

Monatsschrift Kinderheilkunde 6(1999) 615-617
Sozialpädiatrie 9/10 (1999) 342-344

Stillquoten im 1. Lebensjahr



Quelle: Monatsschr. Kinderheilkunde 10 (2002)

Stillen und Rauchen

- Rauchen ist kein Abstillgrund!
- Zigarettenreduktion!
- Zeitmanagement!

Die Vorteile des Stillens überwiegen die Nachteile des Rauchens!

www.bfr.bund.de

Stillen und chron. Hepatitis C der Mutter

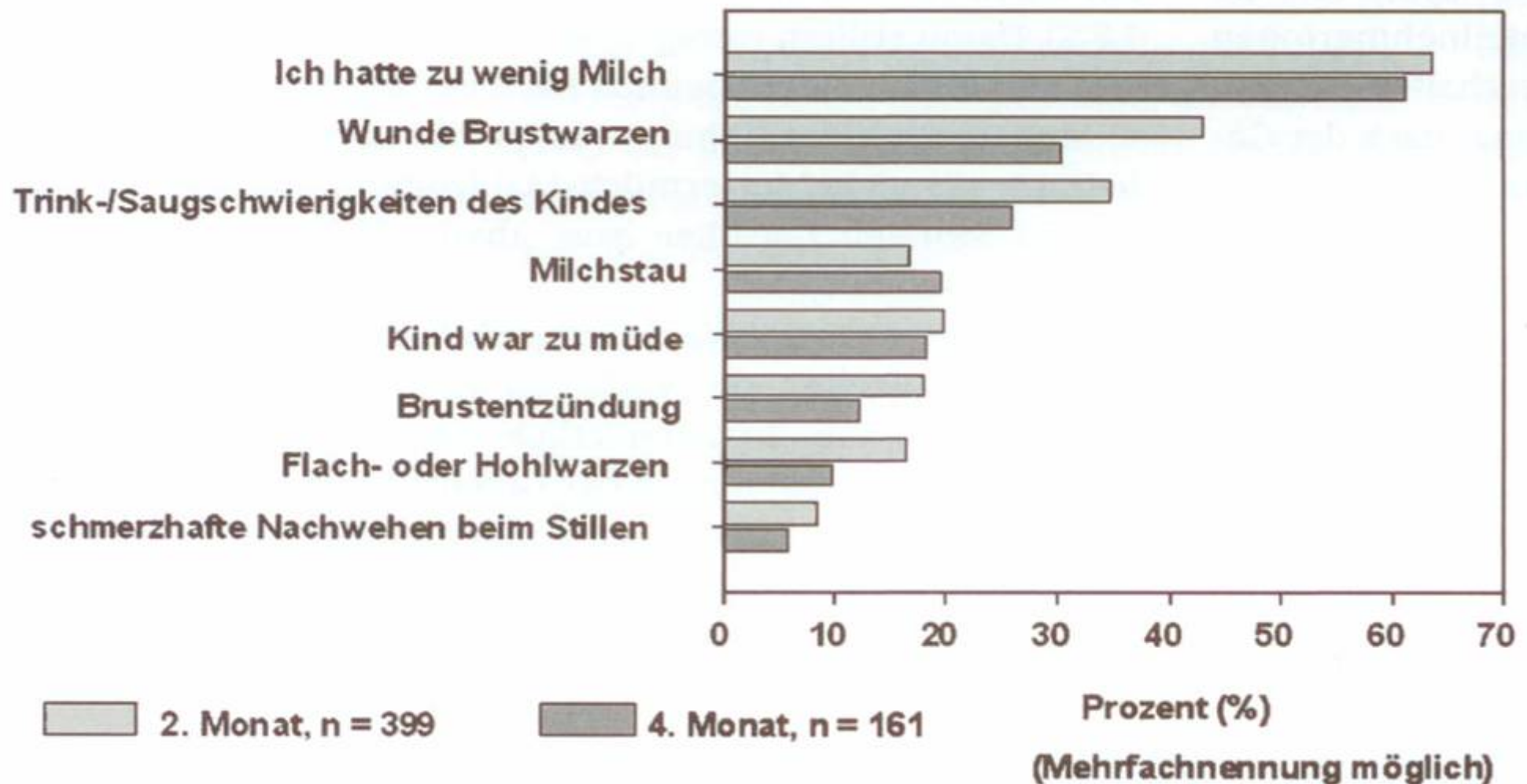
Die Datenlage ist nicht eindeutig genug, um einer stillwilligen Mutter vom Stillen abzuraten!

- gut informierter Arzt
- gutes Aufklärungsgespräch

www.bfr.bund.de

Stillprobleme in den ersten 4 Monaten bei nicht mehr stillenden Müttern

(Bayrische Stillstudie 2005/06, Rebhan et al. Gesundheitswesen, 2008)



Medikamente in der Stillzeit

- jede kranke Stillende muß wirksam behandelt werden
- es sind Medikamente zu wählen, die mit dem Stillen vereinbar sind- z.B. aus der Pädiatrie
- Das Abstillen vermeiden bei einer stillwilligen Mutter ist ein ethischer Grundsatz für den Arzt!

Rückstände in Frauenmilch

-“Die derzeit gemessenen Gehalte an Organochlorverbindungen machen keinerlei Einschränkungen des Stillens mehr erforderlich.

- Untersuchungen von individuellen Milchproben erübrigen sich.”

Monatsschrift Kinderheilkunde 3(1996) 315-316

Die Rechte des Kindes

(UN-Kinderkonvention)

Artikel 24 (2)

Die Vertragsstaaten ...treffen geeignete Maßnahmen, um ...e) sicherzustellen, daß allen Teilen der Gesellschaft, insbesondere Eltern und Kindern, Grundkenntnisse über die Gesundheit und Ernährung des Kindes, die Vorteile des Stillens...vermittelt werden, daß sie Zugang zu der entsprechenden Schulung haben...

Milchbanksymposium Mailand 2008



Prof. Ziegler, Iowa, Lehrer der Neonatologen...



Human milk & the premature infant

Special Advantages

Special advantages that preterm infants derive from being fed human milk:

- Neurocognitive development
- Late-onset sepsis (three studies!)
- Necrotizing enterocolitis (several studies)
- Death
- GI tract maturation

Hitzebehandlung reduziert den biologischen Wert der MM- keine unkritische Pasteurisierung!

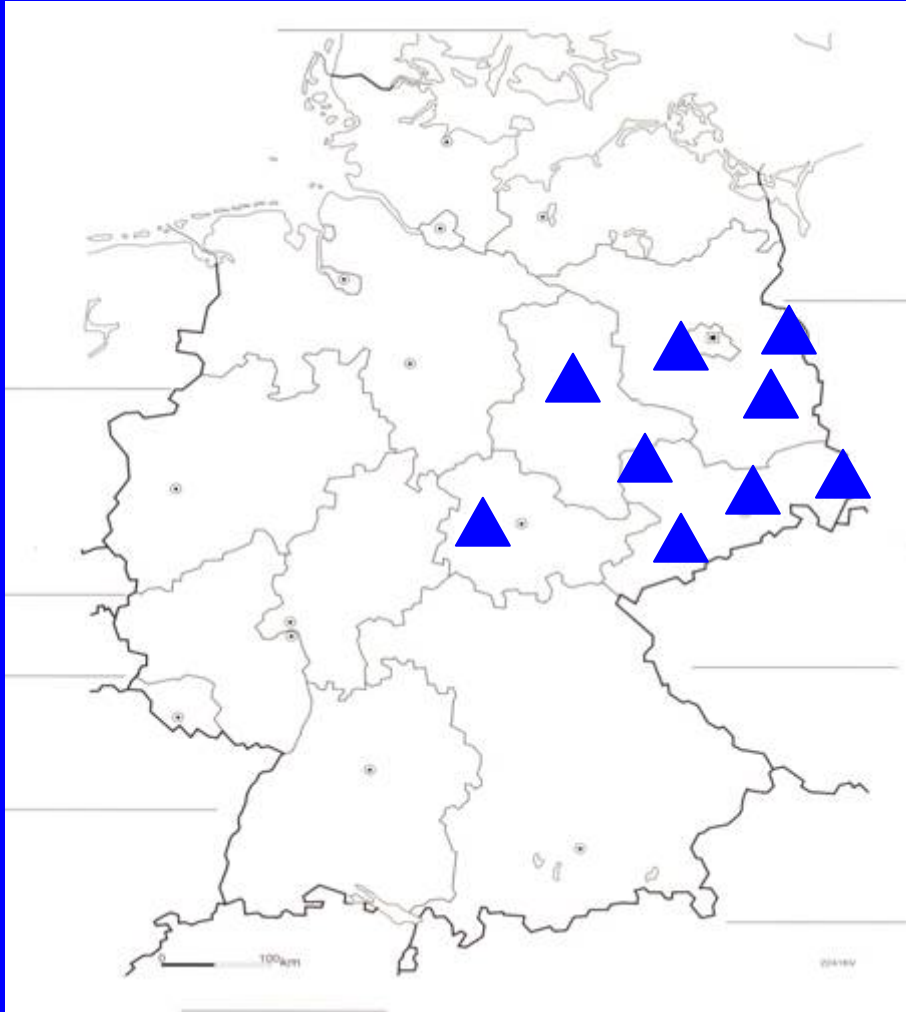
Percentage decreases in constituents of breast milk samples treated by heating and freezing and thawing as compared with values in raw milk

	Heat treatment		Freezing & thawing
Constituent	62.5°C (30min)	70-73°C (15-30min)	-20°C (3 months)
IgA	0-33	33-100	0-3
IgG	34	97	0-significant
IgM	100		Significant
Lactoferrin	0-63	94-100	0
Iron-binding capacity	44-77	100	
Lysozyme	0-23	35-100	0-10
C3		100	7
Lymphocytes (viable)	100		85-100
Macrophages	22		57

Björkstén B, Hernell O. BMJ. 1980



Frauenmilchbanken in Deutschland (N=9)



9 FMB:

Leipzig

Chemnitz

Dresden

Görlitz

Cottbus

Potsdam

Magdeburg

Frankfurt/Oder

Eisenach

Schmerzreduktion ist eine Frage der Ethik...

Analgesic effect of breastfeeding during routine blood tests, in a French maternity

Issues

Making routine blood tests in newborn less painful and improve parents' abilities by asking the mother to breastfeed her baby during the procedure.



Description

Description

We evaluated the effects of breastfeeding while pricking by observing the newborn's face and behaviour during this special time, in 212 dyads. We used a video camera to evaluate the behaviour before, during and after the care. We explained the parents what we have to do and what we want to achieve. We asked the parents to explain the parents what we have to do and what we want to achieve. We asked the parents to explain the parents what we have to do and what we want to achieve.



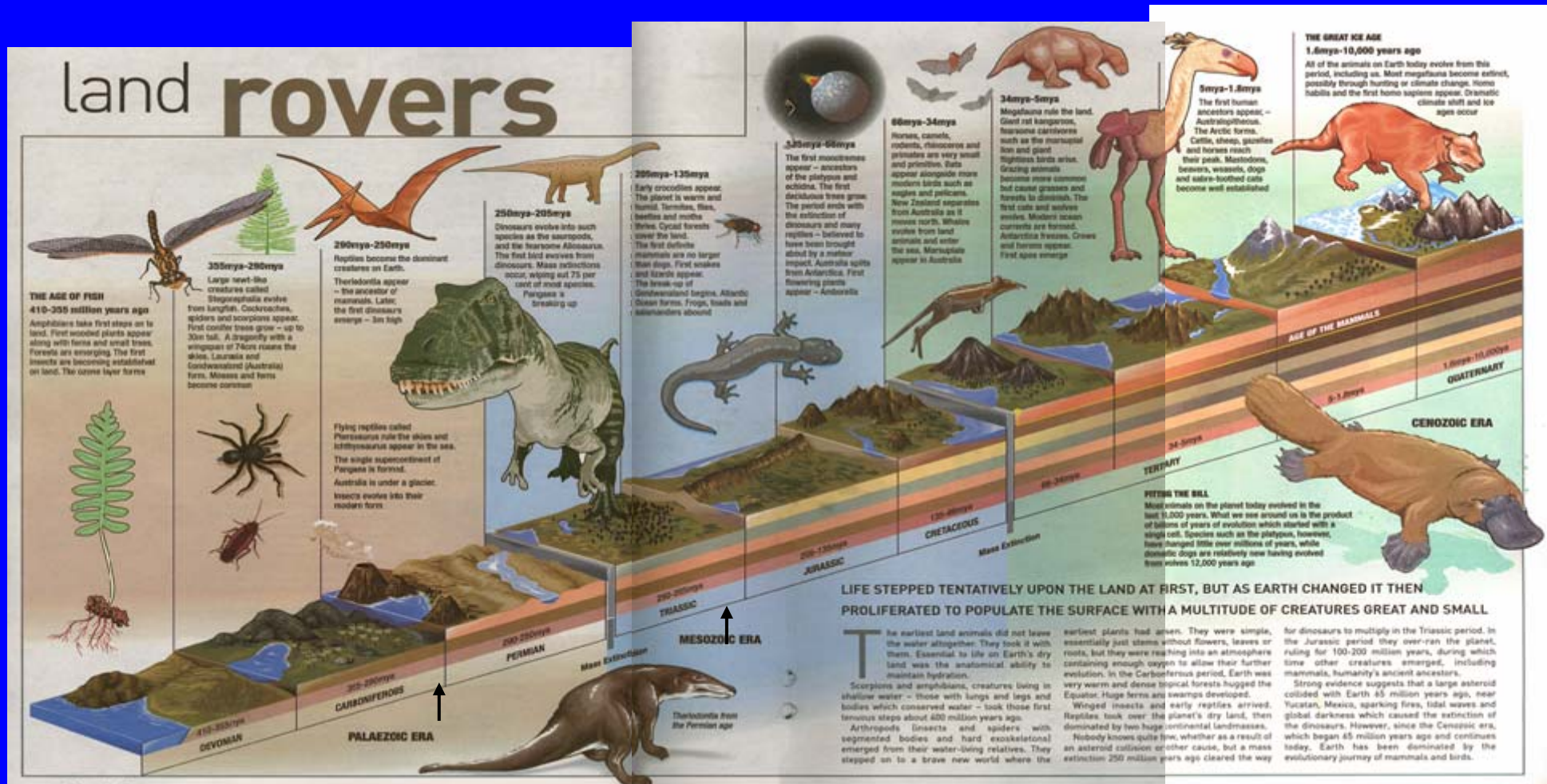
77.8%

Academy of Breastfeeding Medicine



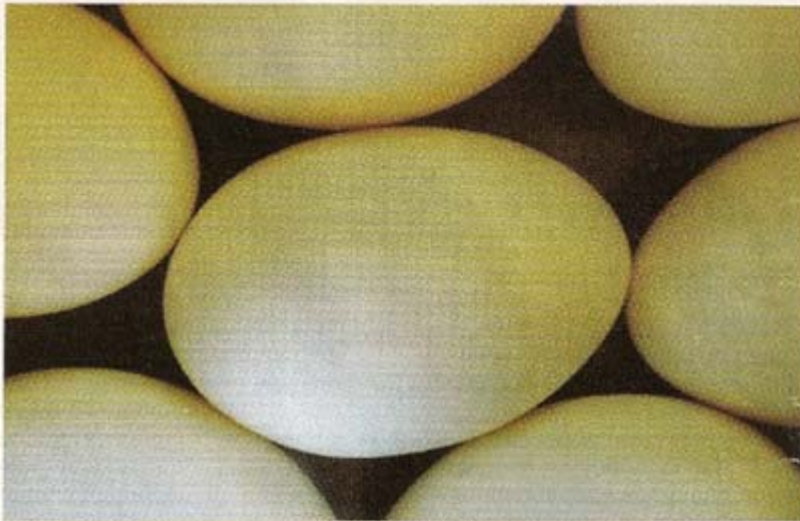


Entwicklung der Laktation



Synapsids >310 million years ago - Oftedal, 2002

Gründe zur Entwicklung der Laktation:



Which came first, the milk or the egg?

IT IS a chicken and egg question – did mammals evolve nutritional milk before or after they abandoned yolky eggs?

"Milk was originally for egg wetting," says Henrik Kaessman at the University of Lausanne in Switzerland. Instead of a hard shell, the first mammalian eggs had a parchment-like covering which mothers rolled in milk to prevent them drying out, he says.

Today, placental and marsupial mammals nourish their newborn young with milk containing a calcium-packed protein called casein. It was suspected that even though

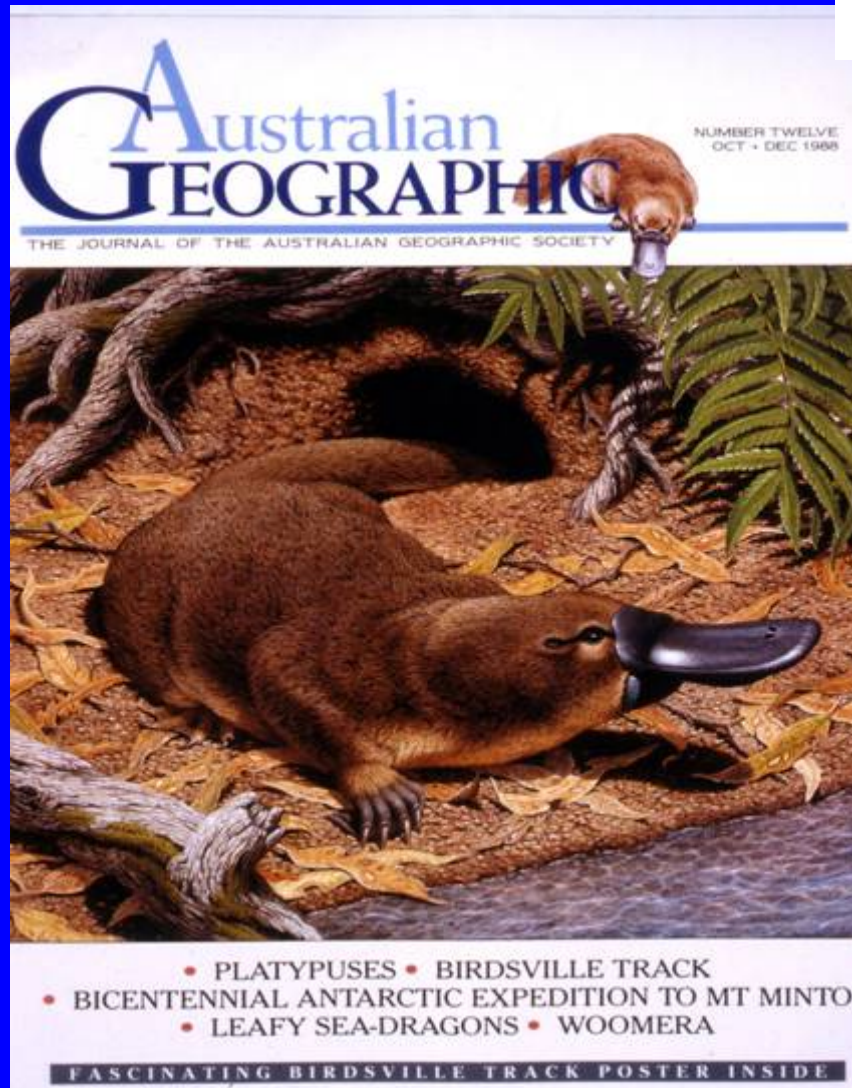
the platypus lays eggs, its milk would also have casein-like proteins, which Kaessman's team confirmed through genetic analysis. This finding suggests nutritional milk would have arisen in all mammals in a common ancestor, up to 310 million years ago (*PLoS Biology*, DOI: 10.1371/journal.pbio.0060063).

Kaessman says mammals abandoned yolky eggs long after they began lactating, as confirmed by his genetic analysis of three genes for a protein called vitellogenin, which ferries nutrients into the yolky egg. All the genes are active in chickens. None is functioning in placental or marsupial mammals, but one still works in the platypus, which has small yolks in its eggs.

Zwei Ziele:

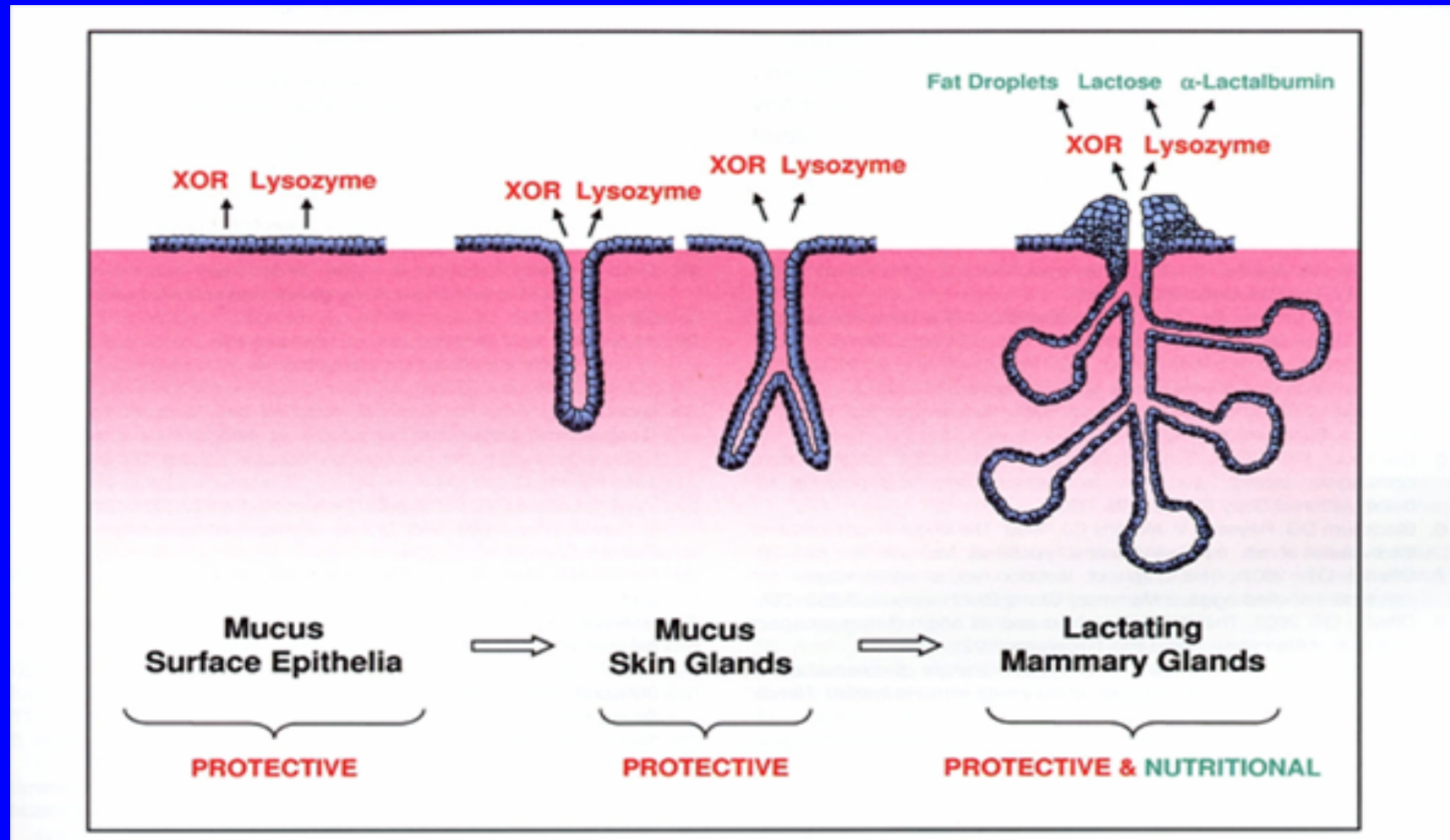
Oftedal (2002)

1. Funktionelle Bedeutung (z.B. Schutz vor Austrocknung der Eier)
2. Metabolische Funktion (immunologischer Schutz und Ernährung)



**Eierschalen wie Pergament – behaarter Fleck mit milchiger Flüssigkeit
Nährstofftransfer?**

Evolution of mammary gland from innate immune system



Vorbach, Capecchi and Penninger (2006)

Känguruh

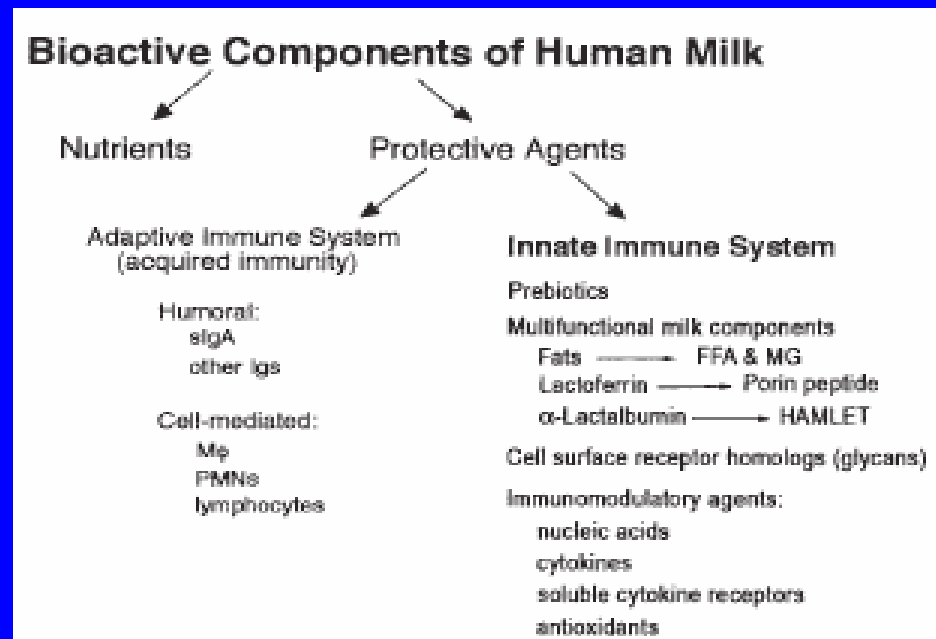


25 day old
Joey



Joey very immature at Birth – young initially attach permanently to the nipple

Antimikrobielle Faktoren in Muttermilch



HEINZ SIGHT

EDITORIAL

Welcome to the first issue of *Heinz Sight* for 2001. In this special issue Dr David Yeung discusses functional foods and their possible implications for infant development and later health. The term *functional food* is used to describe foods which confer a specific health benefit beyond supplying simple nutrient requirements. Some of the functions of functional foods include protection against disease (heart disease, cancer), controlling or reducing symptoms of disease (blood pressure, diabetes), enhancing immune function and improving recovery after injury, surgery or medication. Examples of functional foods include high fibre bread (offering protection from constipation, heart disease), yoghurts (helping to establish or re-establish 'good bacteria' in the gut) and canola margarines (low in saturated fat and high in omega 3 fats to protect against heart disease). For infants, breast milk is the ideal food providing not only nutrients but immunological, growth, antibacterial and other functional components that promote health and development. As the infant grows, the functional components of breast milk are lost and need to be reintroduced in the family diet.

Functional Foods:

Implications for Infant Development and Later Health.

by David L. Yeung, Ph.D. and Crystal T Peters, M.Sc.



Dr. David Yeung is the General Manager-Global Nutrition Service, H.J. Heinz Company.

He was an associate professor in Applied Human Nutrition at the University of Guelph, Guelph, Ontario, Canada before joining the H.J. Heinz Company of Canada and still remains academically active. He is an adjunct professor in the Department of Nutritional Sciences, Faculty of Medicine, University of Toronto and has been an honorary professor in universities in Canada and the People's Republic of China.

Dr. Yeung has published over 70 articles in refereed scientific journals and has served on numerous scientific committees in Canada and the US. He authored the book "Infant Nutrition- A Study of Feeding Practices and Growth From Birth to 18 Months".

Dr. Yeung is the President of the Heinz Institute of Nutrition and has served as a consultant to the Food and Agriculture Organization (FAO), The Micronutrient Initiatives (MI) and the United States of America Agency for International Development (USAID).

In 1997, Dr. Yeung received the Earle Willard McHenry Award in recognition of distinguished service in nutrition.

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SPECIAL ISSUE

Functional Foods:

Possible Implications for
Infant Development and Later
Health¹.

by David L. Yeung, Ph.D.²
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Nutritional Sciences

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"Heinz" - Formula in Australia

Künstliche Säuglingsnahrungen
erfüllen die nur die Aufgabe
der Ernährung

Was lehrt uns das?



2° International Human Banking Meeting
Milano 17 ottobre 2008

Milk... not only milk



Francesca Pozzati



T.I.N.
Neonatal Unit
University of Turin
Prof. C. Fabris

Paola Tonetto



Mother's milk's advantages:



immune-modulating activity

anti-infectious activity

anti-inflammatory activity

enhancement of
intestinal tract's
maturation and trophism

Breastfeeding is not merely...



...giving breast to your own baby...

... but results from:



sharing

support

encouragement