



# Programa de Actualización en Salud Pública y Epidemiología

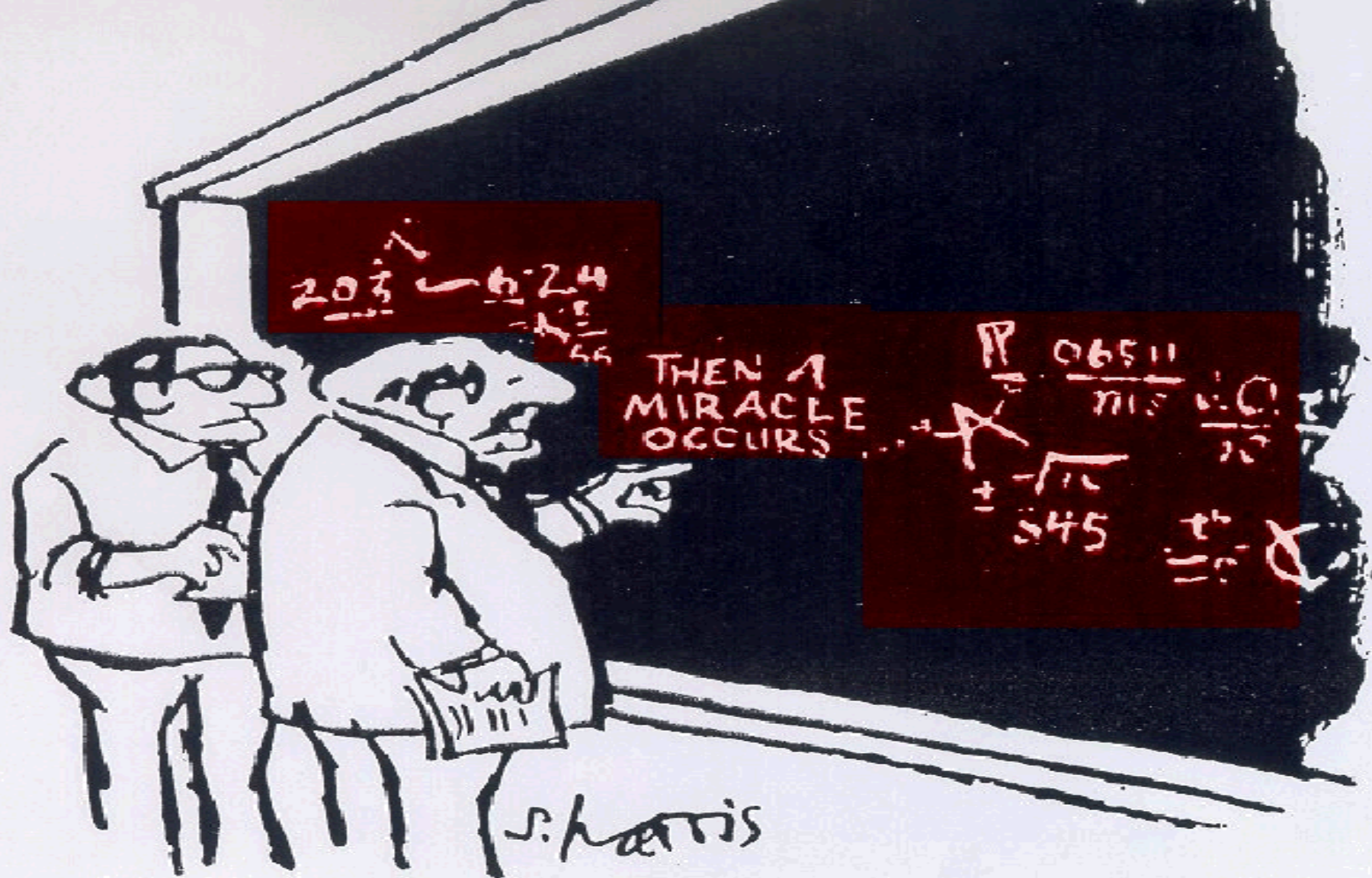
18<sup>edición</sup>  
Verano 2013



Instituto Nacional  
de Salud Pública

## Nuevas “técnicas” de sustanciación

**Curso “Avances en regulación, ciencia y mercado de alimentación”  
Cuernavaca, 12-14 de agosto de 2013.**



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

# Evidencia científica vs. Evidencia científica socialmente aceptable



*Lo importante  
no es tener  
razón, sino que  
se la den a uno*

Konrad Adenauer

# El Reglamento (CE) 1924/2006

30.12.2006

ES

Diario Oficial de la Unión Europea

L 404/9

## REGLAMENTO (CE) N° 1924/2006 DEL PARLAMENTO EUROPEO Y DEL CONSEJO de 20 de diciembre de 2006

relativo a las declaraciones nutricionales y de propiedades saludables en los alimentos

### Artículo 5

#### Condiciones generales

1. Solamente se autorizará el uso de declaraciones nutricionales y de propiedades saludables si se cumplen las siguientes condiciones:

a) se ha demostrado que la presencia, ausencia o contenido reducido, en un alimento o una categoría de alimentos, de un nutriente u otra sustancia respecto del cual se efectúa la declaración posee un efecto nutricional o fisiológico benéfico, establecido mediante datos científicos generalmente aceptados;

2. Solamente se autorizará el uso de declaraciones nutricionales y de propiedades saludables si cabe esperar que el consumidor medio comprenda los efectos benéficos tal como se expresan en la declaración.



# El Reglamento (CE) 1223/2009

22.12.2009

ES

Diario Oficial de la Unión Europea

L 342/59

## REGLAMENTO (CE) N° 1223/2009 DEL PARLAMENTO EUROPEO Y DEL CONSEJO

de 30 de noviembre de 2009

sobre los productos cosméticos

(versión refundida)

(Texto pertinente a efectos del EEE)

### Artículo 11

#### Expediente de información sobre el producto

1. Cuando se introduzca en el mercado un producto cosmético, la persona responsable tendrá un expediente de información sobre el mismo. El expediente de información sobre el producto se mantendrá durante los diez años siguientes a la fecha en la que el último lote del producto cosmético se introdujo en el mercado.

2. El expediente de información sobre el producto contendrá la información siguiente, que habrá de actualizarse cuando sea necesario:

- a) una descripción del producto cosmético que permita relacionar claramente el expediente de información con el producto cosmético;
- b) el informe sobre la seguridad del producto cosmético contemplado en el artículo 10, apartado 1;
- c) una descripción del método de fabricación y una declaración de conformidad con las buenas prácticas de fabricación referidas en el artículo 8;
- d) cuando la naturaleza o el efecto del producto lo justifique, las pruebas que demuestren el efecto reivindicado por el producto cosmético;
- e) información sobre los experimentos en animales que hayan realizado el fabricante, sus agentes o sus proveedores, en relación con el desarrollo o la evaluación de la seguridad del producto cosmético o de sus ingredientes, incluyendo cualquier experimento en animales realizado para cumplir las exigencias legislativas o reglamentarias de terceros países.

# El Reglamento (CE) 353/2008

19.4.2008

ES

Diario Oficial de la Unión Europea

L 109/11

## REGLAMENTO (CE) Nº 353/2008 DE LA COMISIÓN

de 18 de abril de 2008

por el que se establecen normas de desarrollo para las solicitudes de autorización de declaraciones de propiedades saludables con arreglo al artículo 15 del Reglamento (CE) nº 1924/2006 del Parlamento Europeo y del Consejo

(Texto pertinente a efectos del EEE)

LA COMISIÓN DE LAS COMUNIDADES EUROPEAS,

Visto el Tratado constitutivo de la Comunidad Europea,

Visto el Reglamento (CE) nº 1924/2006 del Parlamento Europeo y del Consejo, de 20 de diciembre de 2006, relativo a las declaraciones nutricionales y de propiedades saludables en los alimentos (<sup>1</sup>), y, en particular, su artículo 15, apartado 4,

Prevía consulta a la Autoridad Europea de Seguridad Alimentaria,

Considerando lo siguiente:

(6) Las solicitudes de declaración de propiedades saludables deben tener en cuenta los requisitos estipulados en el Reglamento (CE) nº 1924/2006, en particular los principios y las condiciones generales que se indican en sus artículos 3 y 5. Cada solicitud de declaración de propiedades saludables debe presentarse de forma separada, caracterizando el tipo de solicitud.

(7) La información y los documentos que deben proporcionarse de conformidad con el presente Reglamento se entienden sin perjuicio de cualquier información complementaria que pueda solicitar la Autoridad Europea de Seguridad Alimentaria (la Autoridad) cuando proceda, como se establece en el artículo 16, apartado 2, del Reglamento (CE) nº 1924/2006.

## REGLAMENTO (CE) Nº 353/2008 DE LA COMISIÓN

de 18 de abril de 2008

por el que se establecen normas de desarrollo para las solicitudes de autorización de declaraciones de propiedades saludables con arreglo al artículo 15 del Reglamento (CE) nº 1924/2006 del Parlamento Europeo y del Consejo

(Texto pertinente a efectos del EEE)

1. La solicitud debe contener todos los datos científicos, publicados o no, favorables o no, que sean pertinentes para la declaración de propiedades saludables, junto **con un examen exhaustivo de los datos procedentes de los estudios sobre seres humanos**, con objeto de demostrar que dicha declaración está fundamentada por la totalidad de los datos científicos y tras sopesar las pruebas. Para fundamentar una declaración de propiedades saludables, **se necesitan datos procedentes de estudios en seres humanos sobre la relación entre el consumo del alimento y el efecto declarado.**
2. La solicitud debe incluir un examen exhaustivo de los datos procedentes de los estudios sobre seres humanos que aborden la relación específica entre el alimento y el efecto declarado. **Este examen y la identificación de los datos que se consideren pertinentes para la declaración de propiedades saludables deben efectuarse de una forma sistemática y transparente que demuestre que la solicitud refleja de forma adecuada la importancia relativa de todas las pruebas disponibles.**



REGLAMENTO (CE) Nº 353/2008 DE LA COMISIÓN

de 18 de abril de 2008

por el que se establecen normas de desarrollo para las solicitudes de autorización de declaraciones de propiedades saludables con arreglo al artículo 15 del Reglamento (CE) nº 1924/2006 del Parlamento Europeo y del Consejo

(Texto pertinente a efectos del EEE)

1. **un resumen de los datos de los estudios pertinentes sobre seres humanos**, que indique en qué medida todos estos datos muestran la relación entre el alimento y el efecto declarado;
2. un resumen de los datos procedentes de los estudios pertinentes no realizados en seres humanos, que indique de qué manera y en qué medida estos estudios pueden ayudar a mostrar la relación entre el alimento y el efecto declarado en seres humanos;
3. las conclusiones generales, teniendo en cuenta todos los datos, incluidas las pruebas favorables o no, y ponderando las mismas. Las conclusiones generales deben definir de manera clara en qué medida:
  - a) el efecto declarado del alimento es beneficioso para la salud humana,
  - b) se establece una relación de causa a efecto entre el consumo del alimento y el efecto declarado en seres humanos (por ejemplo, fuerza, coherencia, especificidad, dosis-respuesta y plausibilidad biológica de la relación),**
  - c) la cantidad de alimento y el patrón de consumo requeridos para obtener el efecto declarado son asumibles razonablemente dentro de una dieta equilibrada,
  - d) el grupo o grupos específicos estudiados de los que proceden las pruebas son representativos de la población destinataria de la declaración.

## SCIENTIFIC OPINION

### DHA and support of the cognitive development of the unborn child and breastfed infant

Scientific substantiation of a health claim related to DHA and support of the cognitive development of the unborn child and breastfed infant pursuant to Article 14 of Regulation (EC) No 1924/2006<sup>1</sup>

Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies

(Question No EFSA-Q-2008-773)

Adopted on 13 March 2009

#### PANEL MEMBERS

Jean-Louis Bresson, Albert Flynn, Marina Heinonen, Karin Hulshof, Hannu Korhonen, Pagona Lagiou, Martinus Løvik, Rosangela Marchelli, Ambroise Martin, Bevan Moseley, Hildegard Przyrembel, Seppo Salminen, Sean (J.J.) Strain, Stephan Strobel, Inge Tetens, Henk van den Berg, Hendrik van Loveren and Hans Verhagen.

#### SUMMARY

Following an application from Merck Selbstmedikation GmbH submitted pursuant to Article 14 of Regulation (EC) No 1924/2006 via the Competent Authority of Germany, the Panel on Dietetic Products, Nutrition and Allergies was asked to deliver an opinion on the scientific substantiation of a health claim related to DHA and support of the cognitive development of the unborn child and breastfed infant.

The scope of the application was proposed to fall under a health claim referring to children's development and health.

The food constituent that is the subject of the proposed claim is docosahexaenoic acid derived from tuna oil and presented in soft gel capsules which contain >200 mg DHA, >50 mg eicosapentaenoic acid (EPA) and between 11.4 and 14.4 mg d- $\alpha$ -tocopherol. The food supplement is intended for pregnant and lactating women.

DHA is a well characterised fatty acid the absorption of which is well documented. DHA can be quantified in foods by established methods. The Panel considers that the food constituent, DHA, for which the claim is made is sufficiently characterised.

<sup>1</sup> For citation purposes: Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from Merck Selbstmedikation GmbH on DHA and support of the cognitive development of the unborn child and breastfed infant. *The EFSA Journal* (2009) 1007, 1-14

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Ingrid B. Helland, Lars Smith, Birgitta Blomén, Kristin Saarem, Ola D. Saugstad and Christian A. Drevon  
*Pediatrics* 2008;122:e472-e479  
DOI: 10.1542/peds.2007-2762

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://www.pediatrics.org/cgi/content/full/122/2/e472>

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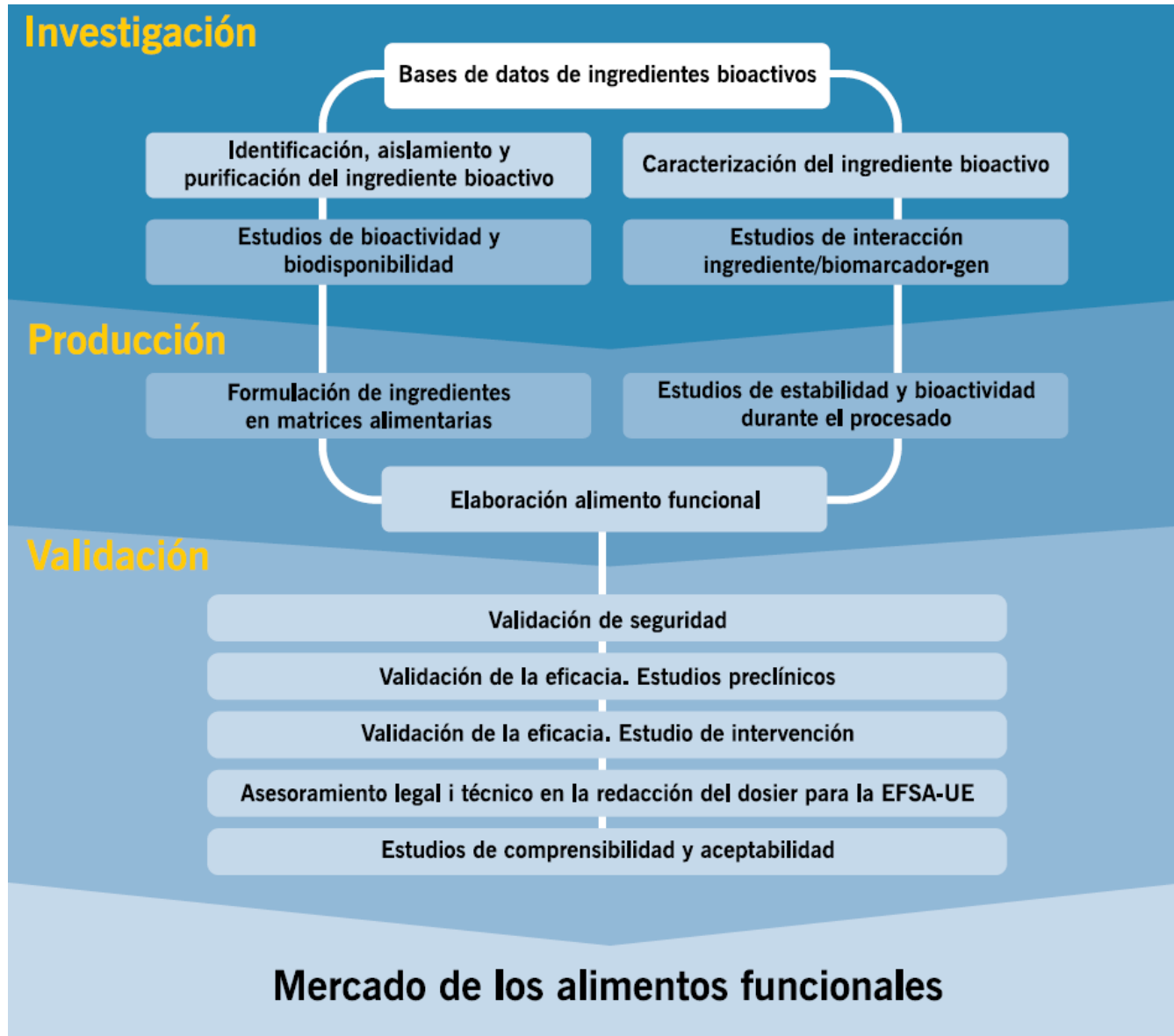
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# Etapas y desarrollo de evidenciación



## GUIDELINES FOR USE OF NUTRITION AND HEALTH CLAIMS

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### CAC/GL 23-1997

Nutrition claims should be consistent with national nutrition policy and support that policy. Only nutrition claims that support national nutrition policy should be allowed.

Health claims should be consistent with national health policy, including nutrition policy, and support such policies where applicable. Health claims should be supported by a sound and sufficient body of scientific evidence to substantiate the claim, provide truthful and non-misleading information to aid consumers in choosing healthful diets and be supported by specific consumer education. The impact of health claims on consumers' eating behaviours and dietary patterns should be monitored, in general, by competent authorities. Claims of the type described in section 3.4 of the *Codex General Guidelines on Claims* are prohibited.



## **ANNEX**

### **RECOMMENDATIONS ON THE SCIENTIFIC SUBSTANTIATION OF HEALTH CLAIMS<sup>1</sup>**

#### **1. SCOPE**

1.1 These Recommendations are intended to assist competent national authorities in their evaluation of health claims in order to determine their acceptability for use by the industry. The recommendations focus on the criteria for substantiating a health claim and the general principles for the systematic review of the scientific evidence. The criteria and principles apply to the three types of health claims as defined in Section 2.2 of the Guidelines for use of nutrition and health claims.

1.2 These recommendations include consideration of safety in the evaluation of proposed health claims, but are not intended for the complete evaluation of the safety and the quality of a food, for which relevant provisions are laid out by other Codex Standards and Guidelines or general rules of existing national legislations.

1. Identificación de la relación propuesta entre el alimento o el componente alimentario y el efecto para la salud.
2. Determinación de las mediciones válidas apropiadas del alimento o componente alimentario y del efecto para la salud.
3. Determinación y clasificación de todos los datos científicos pertinentes.
4. Evaluación de la calidad de cada estudio científico pertinente e interpretación del mismo.
5. Evaluación de todos los datos científicos pertinentes disponibles, ponderación de las pruebas reflejadas en los estudios y determinación de si la relación que se alega está justificada y en qué circunstancias.

# Proceso

1. Identificación de la relación propuesta entre el alimento o el componente alimentario y el efecto para la salud.
2. Determinación de las mediciones válidas apropiadas del alimento o componente alimentario y del efecto para la salud.
3. Determinación y clasificación de todos los datos científicos pertinentes.
4. Evaluación de la calidad de cada estudio científico pertinente e interpretación del mismo.
5. Evaluación de todos los datos científicos pertinentes disponibles, ponderación de las pruebas reflejadas en los estudios y determinación de si la relación que se alega está justificada y en qué circunstancias.

1. Las declaraciones de propiedades saludables deben basarse en primer lugar en pruebas aportadas por estudios de intervención bien concebidos y realizados en seres humanos. Generalmente, los estudios observacionales en personas no bastan por sí mismos para justificar una declaración de propiedades saludables pero, cuando son pertinentes, pueden suponer una contribución al conjunto de las pruebas. Los datos de estudios en modelos animales, ex vivo o in vitro, pueden presentarse como una base de conocimientos que apoya la explicación de la relación entre el alimento o componente alimentario y el efecto saludable, pero no deben considerarse jamás como una prueba suficiente per se para justificar cualquier tipo de declaración de propiedades saludables.
2. Deben identificarse y revisarse todas las pruebas, incluidos los datos no publicados, cuando se considere adecuado, como: las pruebas del efecto que se alega, las pruebas que contradicen el efecto que se alega y las pruebas ambiguas o poco claras.
3. Las pruebas basadas en estudios en seres humanos deben demostrar una relación coherente entre el alimento o componente alimentario y el efecto saludable, con pocos o ningún dato que demuestren lo contrario.

4. Pese a la necesidad de mantener siempre la alta calidad de las pruebas científicas, la justificación puede tener en cuenta situaciones y procesos alternativos específicos, como:

Las declaraciones relacionadas con la “función de los nutrientes” pueden justificarse a partir de las declaraciones aceptadas generalmente de organismos científicos expertos reconocidos y autorizados verificadas y validadas a lo largo del tiempo.

Algunas declaraciones de propiedades saludables, como las que implican una relación entre una categoría de alimento y un efecto saludable, pueden estar fundamentadas en pruebas observacionales, como estudios epidemiológicos. Tales estudios deberían proporcionar un cuerpo de pruebas sólido procedente de diversos estudios bien diseñados. También se pueden utilizar directrices dietéticas y declaraciones preparadas o ratificadas por organismos competentes basadas en pruebas y que cumplan los mismos requisitos científicos estrictos



# LA CONSTRUCCIÓN DE LA EVIDENCIA: CALIDAD METODOLÓGICA Y DE RESULTADOS



UCAM

1. El diseño de los estudios de intervención en seres humanos debe incluir, particularmente, un grupo de control adecuado, caracterizar los antecedentes dietéticos de los grupos en estudio y otros aspectos relevantes de su estilo de vida, tener la duración adecuada, tomar en consideración el nivel de consumo del alimento o componente alimentario que puede alcanzarse razonablemente en una dieta equilibrada y evaluar la influencia de la matriz alimentaria y el contexto dietético total sobre el efecto saludable.
2. El análisis estadístico de los datos debería basarse en metodologías reconocidas por la comunidad científica como apropiadas para este tipo de estudios y en una interpretación acertada de la significación estadística.
3. el efecto que se alega del alimento o componente alimentario es beneficioso para la salud humana;
4. Se Establece una relación causa-efecto entre el consumo del alimento o componente alimentario y el efecto que se alega en los seres humanos, como la fuerza, la consistencia, la especificidad, la relación dosisrespuesta, cuando sea pertinente, y la verosimilitud biológica de la relación;
5. La cantidad del alimento o componente alimentario y el patrón de consumo necesario para obtener el efecto que se alega pueden lograrse razonablemente siguiendo una dieta equilibrada pertinente para la población a la que se destina la declaración;
6. Los grupos de estudio específicos en los que se obtuvieron las pruebas son representativos de la población a la que se destina la declaración de propiedades.

# LOS ANTECEDENTES

## 1. FUFOSE (Functional Foods Use in Europe): 1995-1998. Proyecto de la Comisión Europea relativo a una Acción Concertada sobre Ciencia de los Alimentos Funcionales en Europa. Fue coordinado per el ILSI Europa (International Life Sciences Institute)

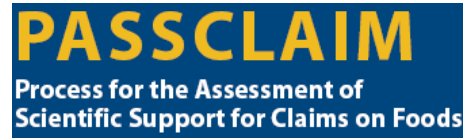
A lo largo de 3 años, 100 expertos en Nutrición y Medicina evaluaron críticamente la situación de los alimentos funcionales, marcaron la necesidad de la validación científica y propusieron los dos tipos de claims de propiedades saludables: mejora de función y reducción del riesgo de enfermedad.

**Table 1** Health claims classification according to FUFOSE, Council of Europe, Codex Alimentarius and the proposed EU regulation

FUFOSE (1998)	Council of Europe (2001)	Codex Alimentarius (2003)	Proposed EU regulation (2003)
Nutrient function claims not considered	Nutrient function claims not considered	Nutrient function claims	Health claims related to the generally accepted role of nutrients and other substances
A. Enhanced function claims	A. Enhanced function claims	Other function claims	
B. Disease risk reduction claims	B. Disease risk reduction claims	Disease risk reduction claims	Health claims related to disease risk reduction

Nutrient function claims (sometimes referred to as structure function claims), enhanced function claims, and other function claims are closely related, but have been introduced at different stages of the claim development discussion. The dotted lines indicate that there is no absolute delineation between "nutrient function claims" on the one hand and "enhanced function/other function claims" on the other hand. A "new" function of a nutrient may be regarded as an enhanced/other function until, through further documentation, practice and familiarity, it becomes generally recognised as a "nutrient function claim". A function of a non-nutrient would be regarded as "other function" according to Codex, but as science advances, it may later fall under "generally recognised effects of nutrients and other substances" according to the proposed EU regulation [1]

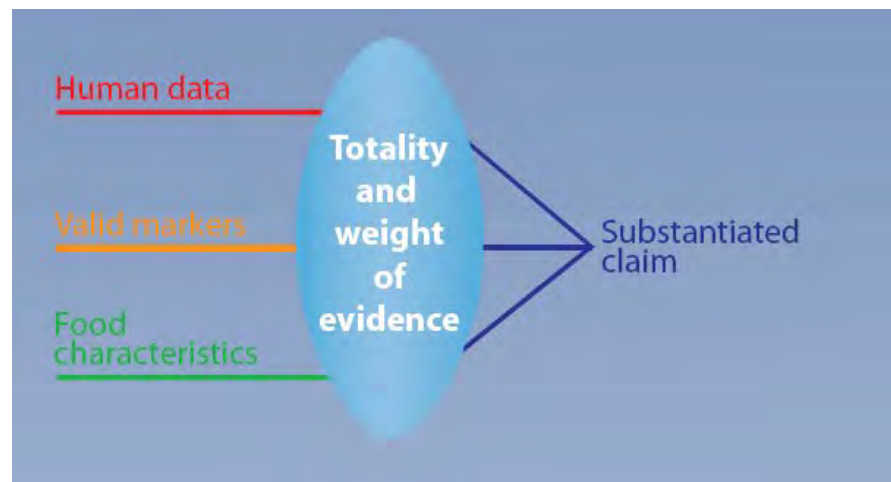
## 2. **PASSCLAIM** ("Process for the Assessment of Scientific Support for Claims on Foods" ) (2001-2005)



Proyecto de la Comisión Europea, también coordinado por el ILSI Europa. Es la continuación lógica del FUFOS.

### OBJETIVOS DEL PASSCLAIM

1. producir una herramienta genérica para evaluar el apoyo científico de las declaraciones de salud sobre los alimentos.
1. Evaluar los esquemas existentes para comprobar el apoyo científico de las declaraciones
1. Establecer criterios para definir marcadores válidos para explorar las relaciones entre la dieta y la salud entre dieta i salut



**Metodología de Trabajo:** 4 Grupos (Expertos académicos, expertos en regulación, representantes de la industria y representantes de grupos de interés de la población)

Temáticas que se abordaron:

- \* [Diet-related Cardio-vascular Disease](#)
- \* [Bone health and osteoporosis](#)
- \* [Physical performance and fitness](#)
- \* [Insulin Sensitivity and Risk of Diabetes](#)
- \* [Diet-related Cancer](#)
- \* [Mental State and Performance](#)
- \* [Gut Health and Immunity](#)

### **BENEFICIOS DEL PASSCLAIM:**

1. Para la Industria Alimentaria Europea: Ofrece las guías para la preparación de los dosieres científicos que han de servir para sustanciar las declaraciones.
2. Para el consumidor: Genera confianza al reducir los desequilibrios en la información sobre las declaraciones utilizadas por la industria.
3. Para el Legislador: Facilita la compilación de guías para preparar las solicitudes con la consiguiente mejora de la eficiencia de los procesos de revisión y autorización.





# CRITERIOS ESTABLECIDOS POR EL PASSCLAIM

**Criterio 1.** El alimento o componentes del alimento para los cuales se solicita el efecto deben estar caracterizados.

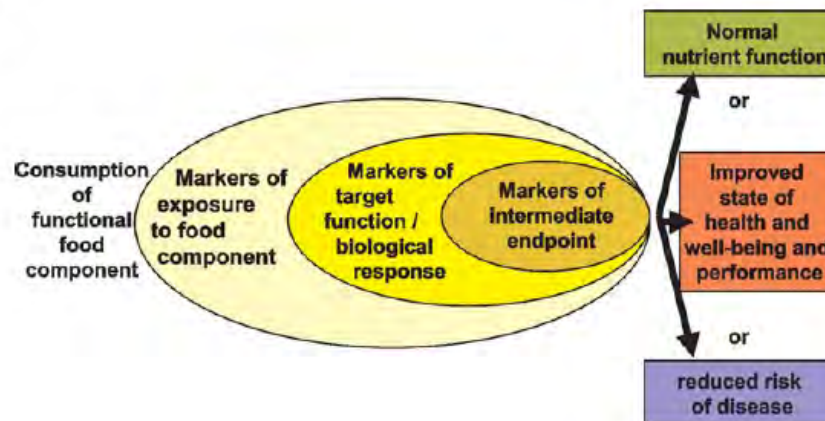
**Criterio 2.** Las declaraciones deben de tener evidencia científica y deberían basarse en estudios de intervencion en humanos

**Criterio 3.** En caso que no se pueda medir directamente el efecto beneficioso, los estudios han de utilizar marcadores

## FUENTES DE EVIDENCIA CIENTÍFICA

1. Identificación de todos los estudios relevantes
2. Estudios de intervención en humanos
3. Estudios de observación en humanos
4. Estudios de apoyo
  - Estudios en animales
  - Estudios in vitro
  - Modelización del mecanismo de acción

Fig.3 PASSCLAIM classification of markers relevant to health claims





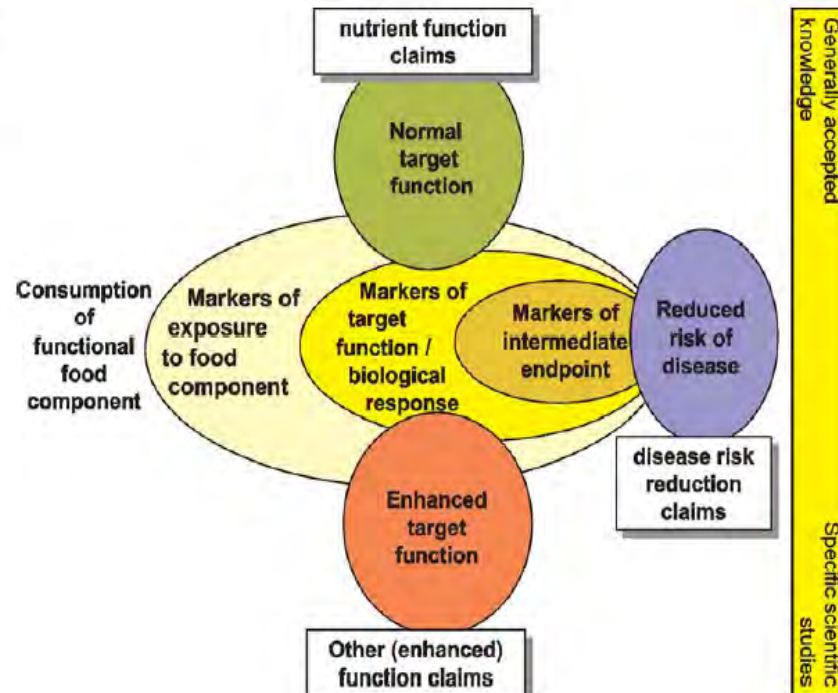
**Criterio 4.** Los marcadores han de ser válidos:

- Desde un punto de vista biológico
- Desde un punto de vista metodológico

**Criterio 5.** En un estudio, la variable que se analiza ha de variar de manera estadísticamente relevante y este cambio ha de tener un significado biológico consistente con el efecto que se persigue

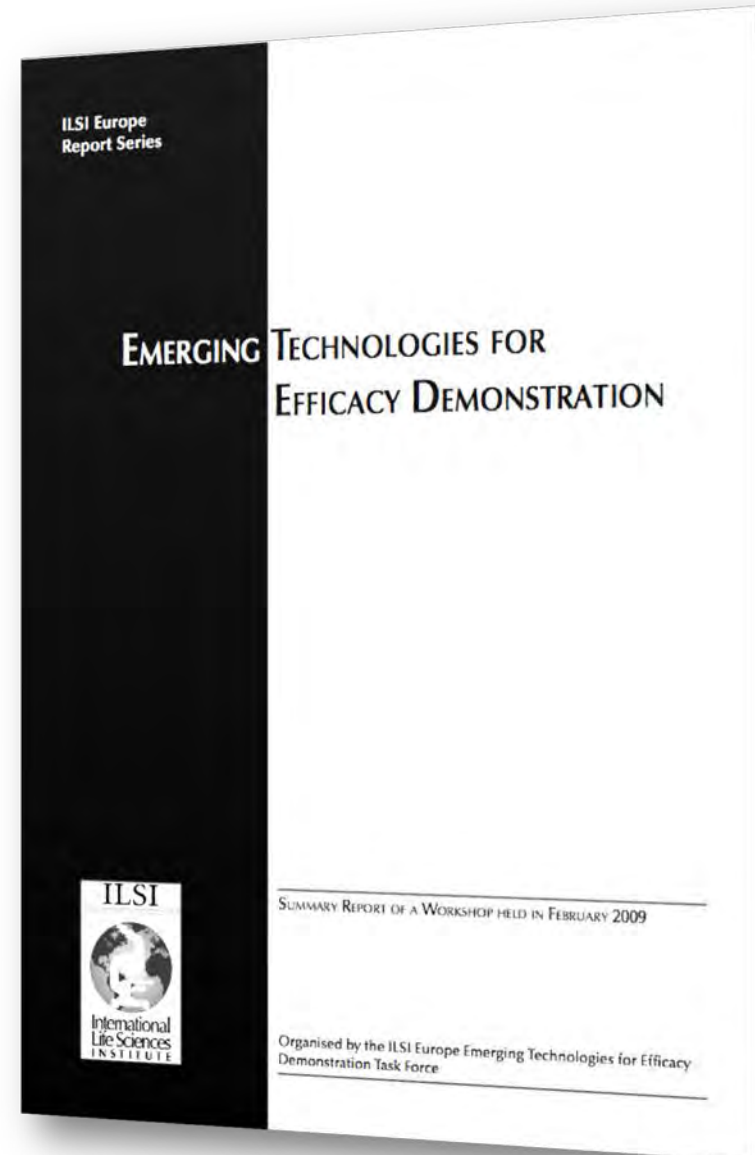
**Criterio 6.** Una declaración debe estar fundamentada científicamente tomando en consideración la totalidad de los datos

**Fig. 4** Relationship between health claims addressed by PASSCLAIM and the FUFOS concept of underlying scientific evidence

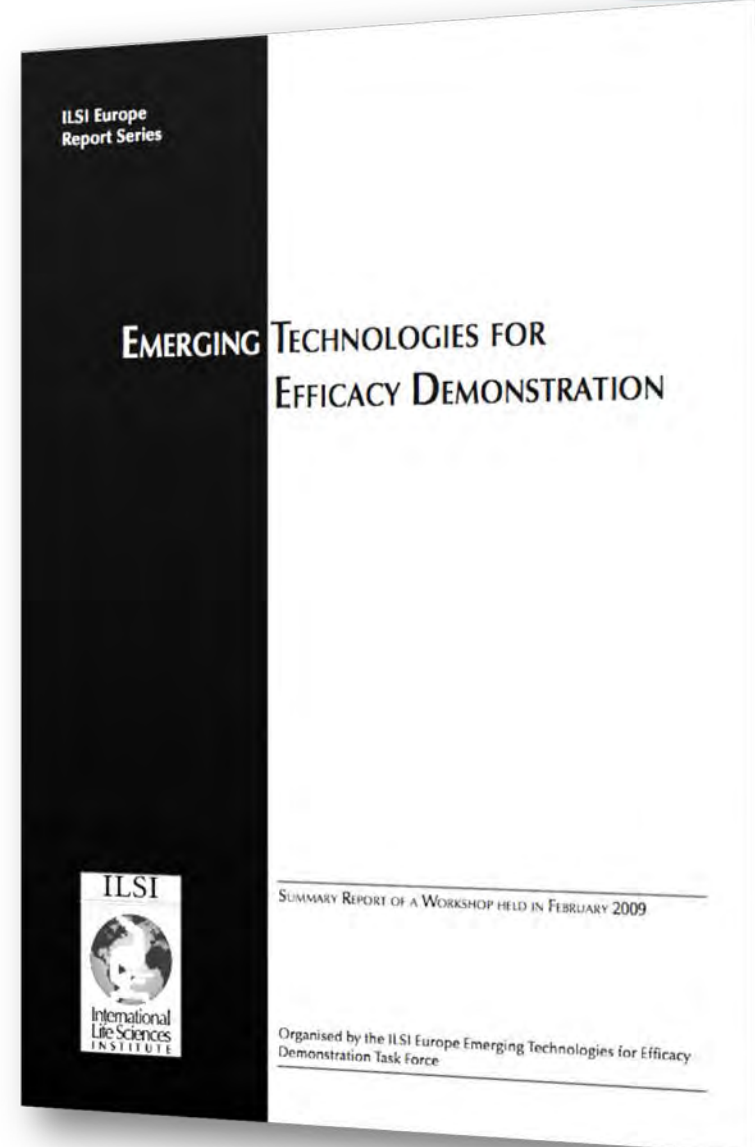


## EMERGING TECHNOLOGIES TASK FORCE

Bioactive food ingredients are claimed to either reduce disease risks or to improve life quality by optimising and maintaining body functions. These cBackgroundMany laims have to be based on scientific substantiation. The project “Process for the Assessment of Scientific Support for Claims on Foods” (PASSCLAIM) developed a generic tool to assess the scientific support for health claims for foods. It also established criteria for markers and measurement techniques to be used to substantiate a claim. **However, today new technologies have been developed, such as the -omics technologies, which can serve as good tools to further strengthen the evidence of efficacy of specific bioactive food ingredients, detect new markers of efficacy which were not known up to date and/or generate reliable evidence in cases (i.e. calorie restriction) where this may be difficult for the classical biomarkers. Likewise, it is conceivable that imaging techniques derived from clinical diagnosis can provide evidence in humans, i.e. brain functions, which is very difficult to get with established biomarkers/tests.**



[...] In addition to these known kinds of markers, also markers for an early prediction of improvement (as early as possible) and special markers for demonstration of a claimed effect (validated markers to demonstrate a claimed effect of a substance) were suggested. Also a ranking of the markers into “light” and “hard” markers was proposed. The “light” markers (e.g., new markers which lack full validation) could be used for exploratory studies while the “hard” markers (e.g., markers with a long history of use) could be used for confirmatory studies. Further, **it might be a good suggestion to not only use markers describing a definite status (e.g. oxidised low-density lipoprotein (LDL) or LDL-cholesterol plasma levels as a recognised marker for cardiovascular disease risk) but to use a marker describing a dynamic effect (e.g. Flow Mediated Dilation as a descriptor for coronary artery (cardiovascular) health).**



# A Standardised Approach Towards PROving the Efficacy of Foods and Food Constituents for Health CLAIMs (PROCLAIM): Providing Guidance

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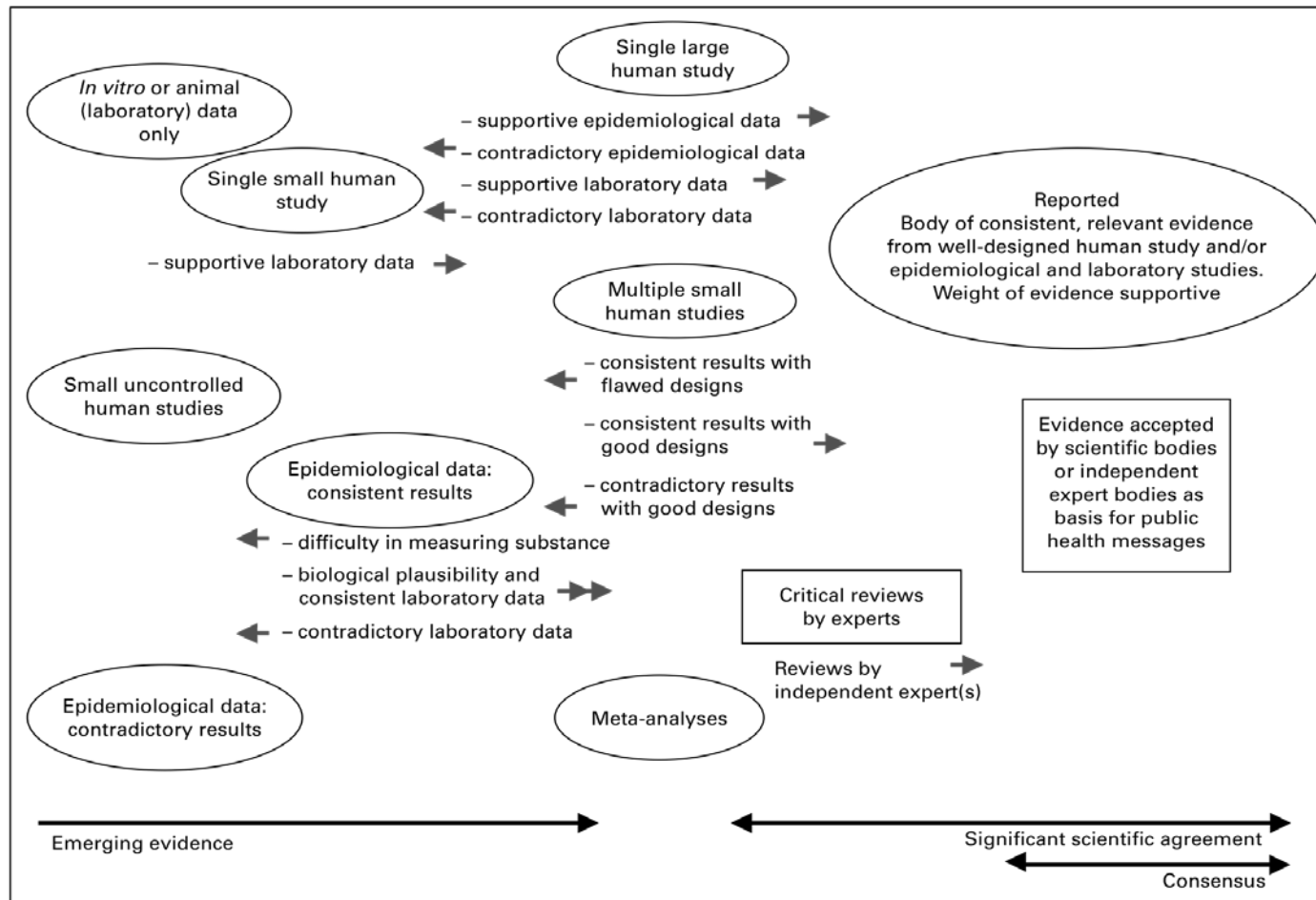
*Commissioned by the*  
ILSI Europe Functional Foods Task Force

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Correspondence: ILSI Europe a.i.s.b.l. - Avenue E. Mounier 83, Box 6 - 1200 Brussels - Belgium  
email [publications@ilsieurope.be](mailto:publications@ilsieurope.be) - Fax: +32 2 762 00 44

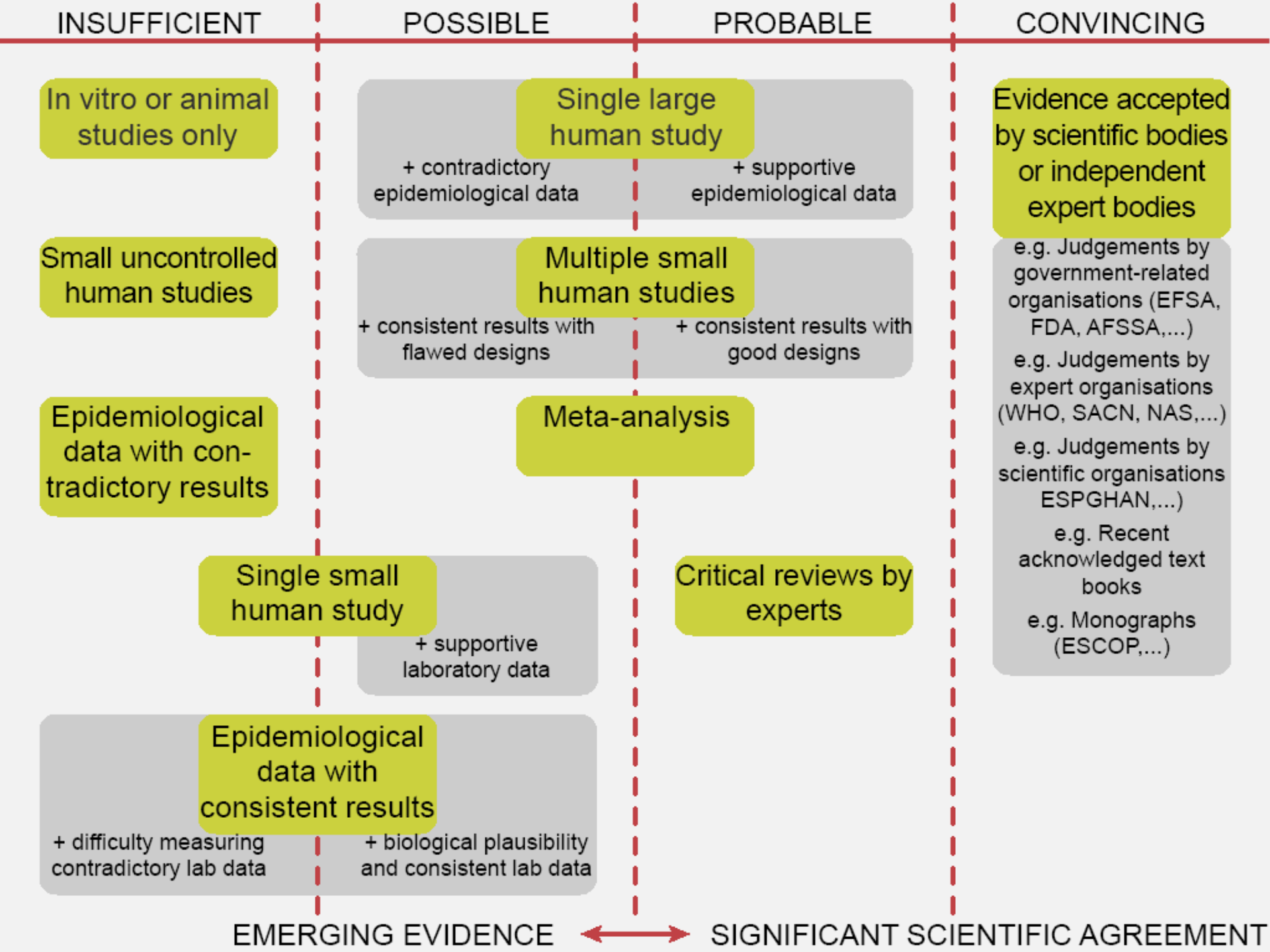
One common approach is the distinction between different levels of evidence. This classification of the evidence into

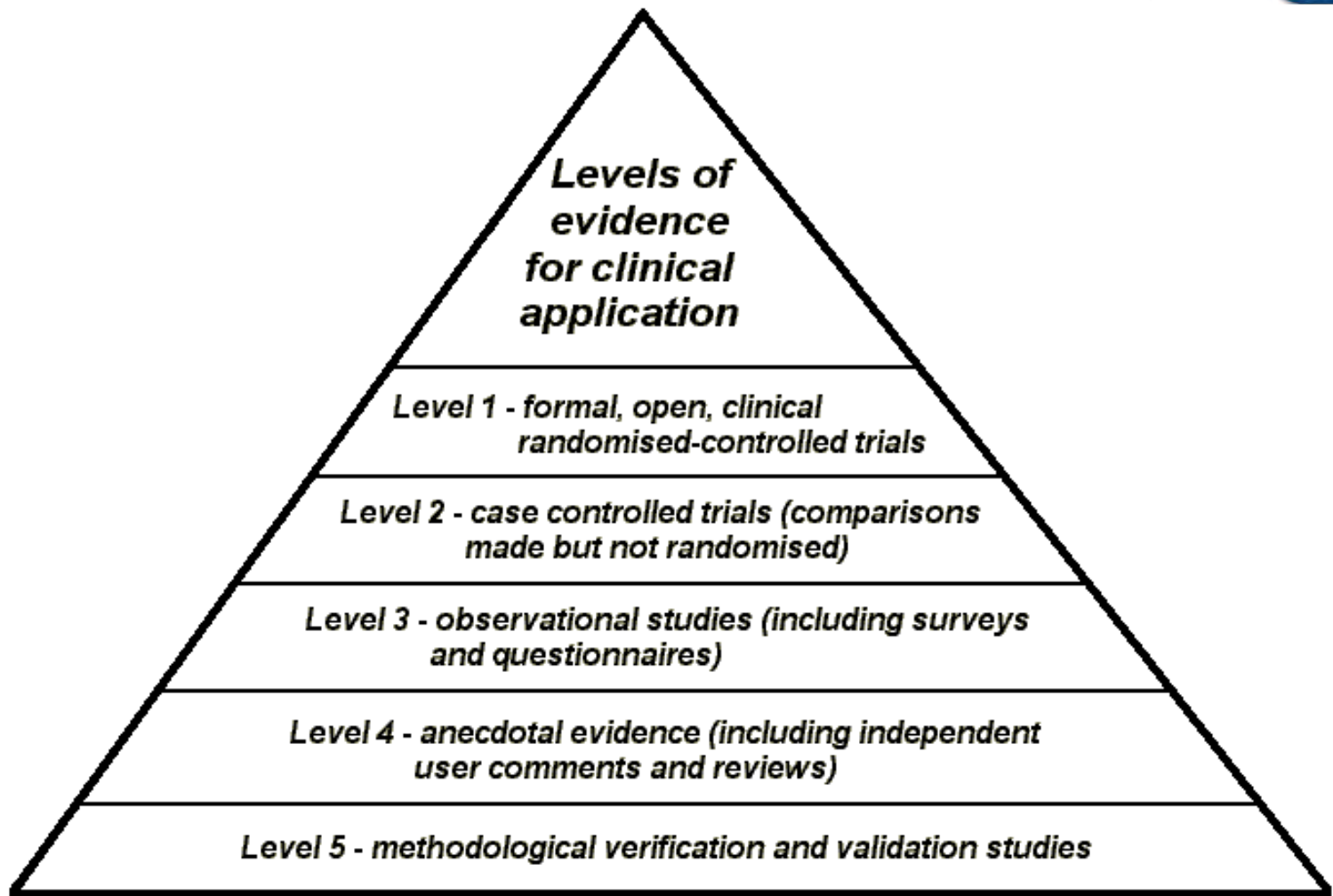
rates that it is possible to assess the extent of the evidence of causation and to compare the consistency of relative risks

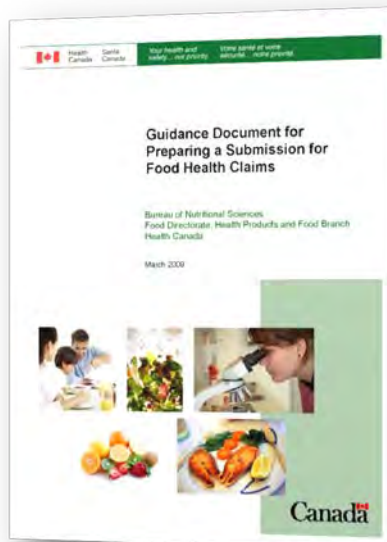


**Fig. 3.** Graphical representation for weighing of the evidence on a case-by-case basis in support of a health claim. †Adapted from Richardson *et al.*<sup>(33)</sup>. The arrows reflect the fact that the totality of the evidence is made up of different sources of scientific data, and that each health relationship and claim must be assessed on a case-by-case basis to reflect the strength, consistency and coherence of the information. The graphical representation also reflects the scientific method, in that individual study results can be inconsistent, but as the science evolves, consensus may evolve, which allows the balance of probabilities for the scientific link between a food (constituent) and a health benefit to be assessed<sup>(33)</sup>.







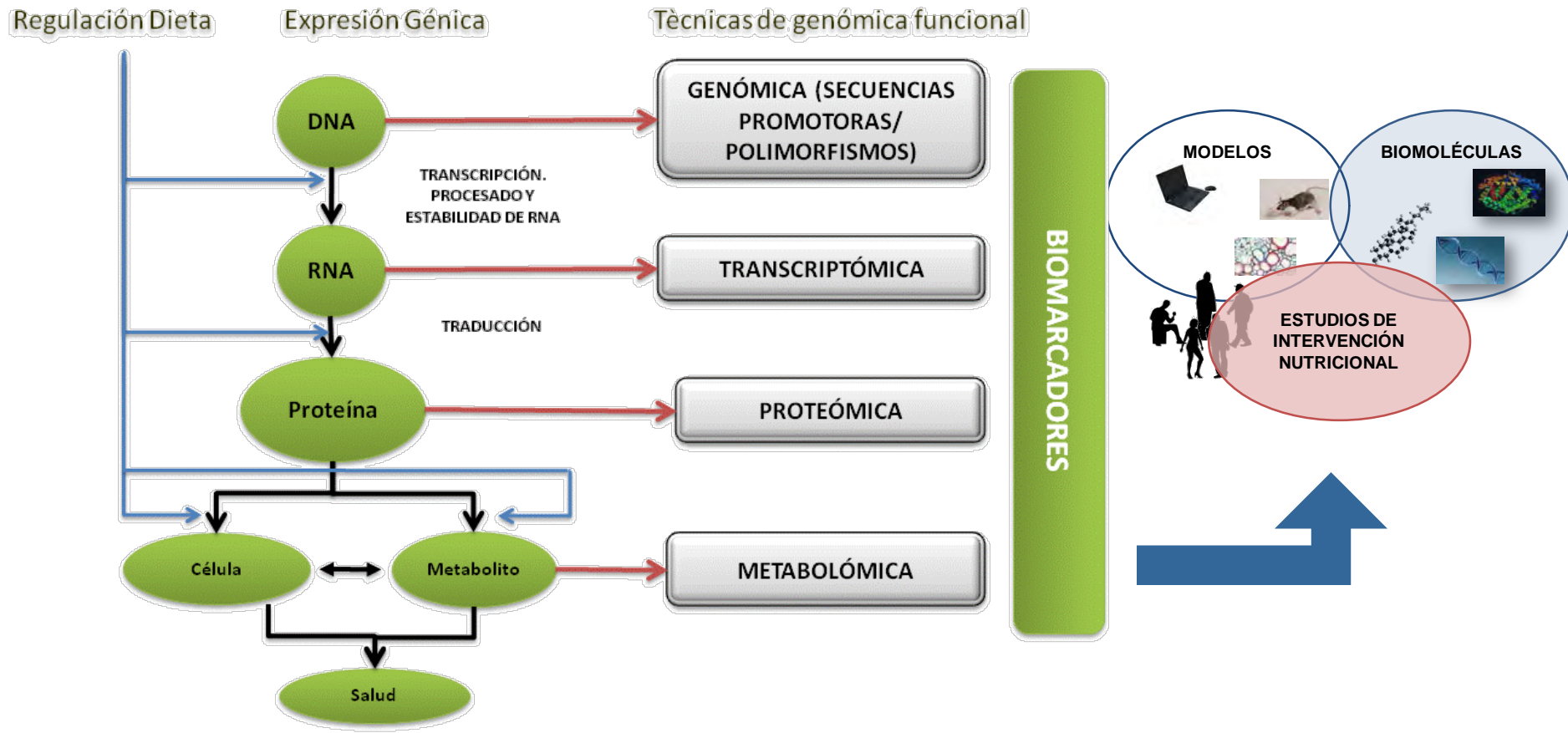


- Step 1. Describe the search strategy for literature retrieval**
- Step 2. Implement the search strategy for literature retrieval**
- Step 3. Develop inclusion and exclusion criteria to filter the literature retrieved**
- Step 4. Filter the literature**
- Step 5. Generate reference lists of included and excluded studies**
- Step 6. Tabulate studies**
- Step 7. Evaluate study quality**
- Step 8. Tabulate study findings per health outcome**
- Step 9. Assess causality**
  - Step 9a. Rate consistency**
  - Step 9b. Rate the strength of the association**
  - Step 9c. Discuss the relationship between the food exposure and the health effect**
- Step 10. Discuss generalizability of the data to the target population**
- Step 11. Discuss the physiological meaningfulness of the effect of the food exposure**
- Step 12. Discuss the feasibility of consuming an effective amount of the food**
- Step 13. Make conclusions**



El binomio “mecanismo de acción-efecto fisiológico”

# Mecanismo de acción + efecto fisiológico





# Qué son los Marcadores y cómo se clasifican?

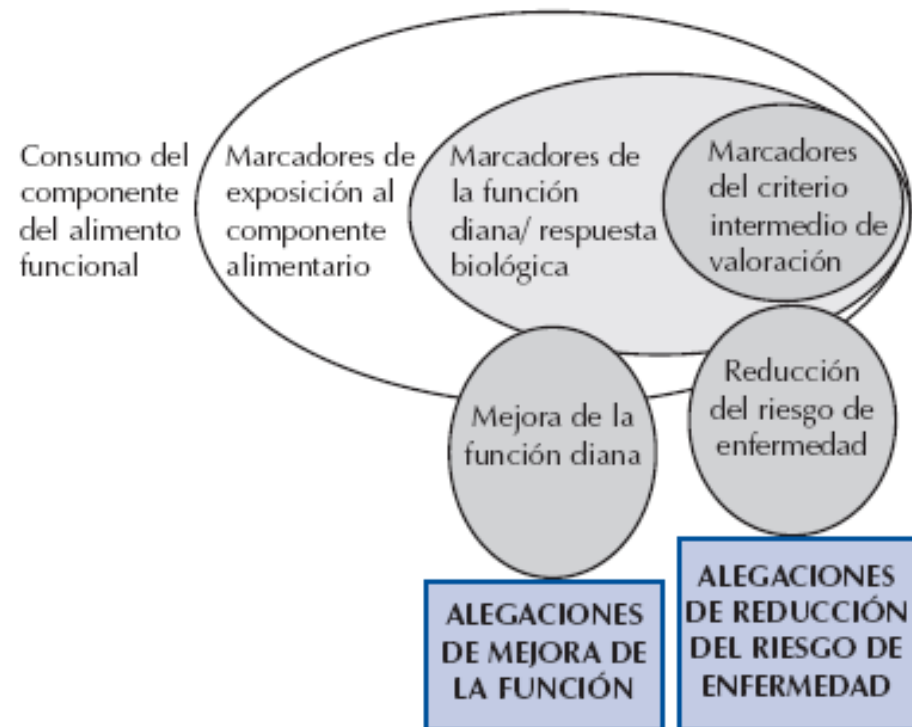
## Tipos de marcadores

**Marcadores de exposición**, tales como los que evalúan la digestibilidad, fermentabilidad, absorción y/o distribución hística o, en términos generales, la accesibilidad biológica.

**Marcadores de funciones blanco y respuestas biológicas**, tales como cambios en los fluidos o tejidos corporales, en los niveles de un metabolito, de una proteína o de una enzima, o marcadores que guardan relación con un cambio en una función determinada, por ejemplo la fuerza muscular, el consumo máximo de oxígeno, la cognición o el tránsito intestinal.

**Marcadores de criterio intermedio de valoración de un mejor estado de salud y bienestar, de la reducción de un riesgo de enfermedad, o de ambos**, tales como la medición de un proceso biológico asociado directamente al criterio de valoración (por ejemplo la medición de los niveles de hemoglobina en relación con la anemia o la medición del engrosamiento de las paredes arteriales en relación con la enfermedad cardiovascular).

## Alimentos funcionales: propuesta de una base científica para las alegaciones (del Documento de Consenso FUFOSÉ)

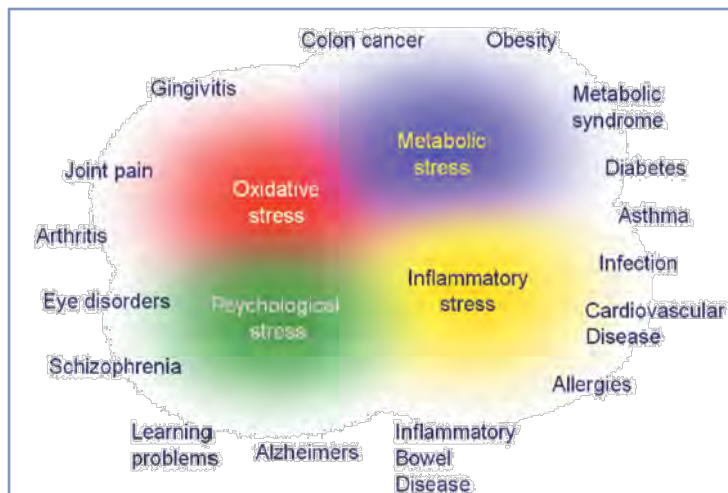


# Etapas de desarrollo y evidenciación

Generar e integrar los datos obtenidos con distintos modelos biológicos.

Optimizar el diseño de los estudios de intervención nutricional en humanos.

Comprender el mecanismo de acción.

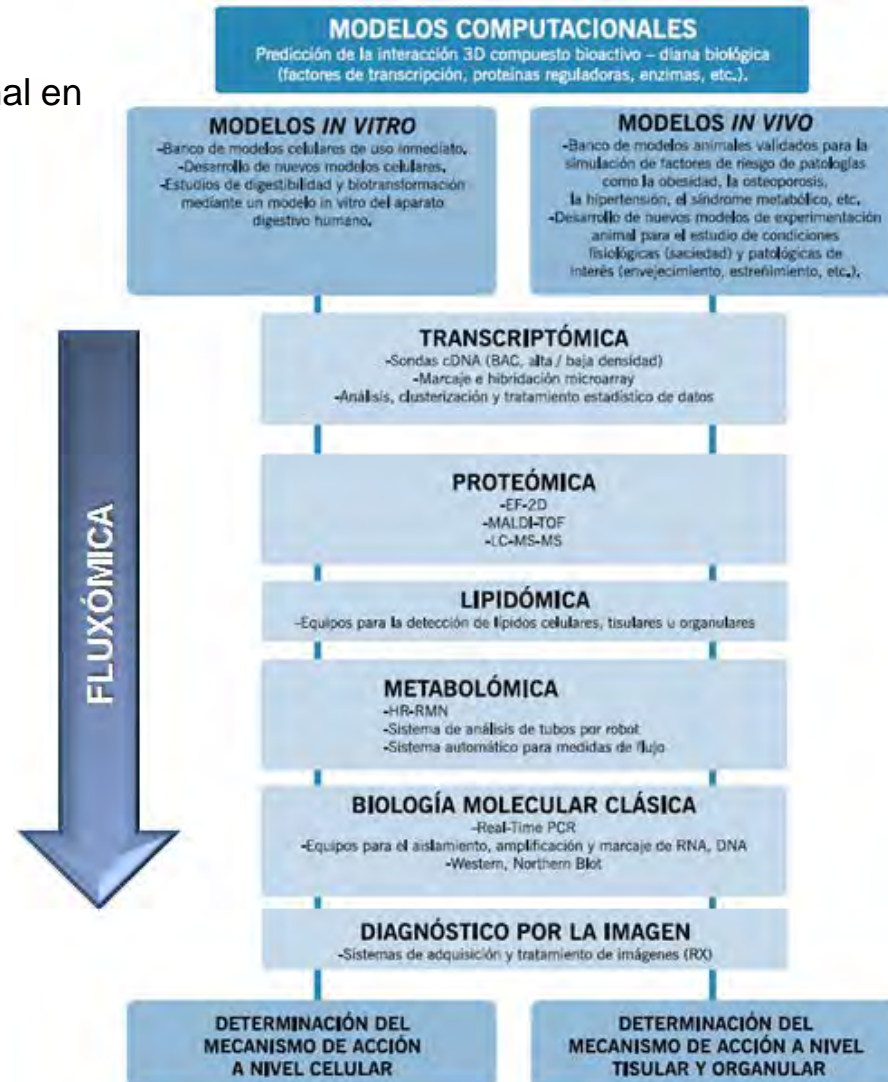


**Figure 1.** Overarching processes. Health is not the absence of disease but the maintenance of overarching processes controlling health status. The interaction of metabolic, oxidative, inflammatory and psychological processes determines major components of the health status. Related stress causes development of many related diseases.

Challenging homeostasis to define biomarkers for nutrition related health

Ben van Ommen<sup>1</sup>, Jaap Keijer<sup>2,3</sup>, Sandra G. Heil<sup>2,3</sup> and Jim Kaput<sup>4</sup>

Mol. Nutr. Food Res. 2009, 53, 795–804



# EVALUACIÓN DE LA BIOACTIVIDAD/BIODISPONIBILIDAD DE PRINCIPIOS ACTIVOS MEDIANTE APROXIMACIONES POR TÉCNICAS DE METABOLÓMICA Y PROTEÓMICA

## BIOINFORMÁTICA

- Aplicación de metodologías computacionales para la predicción *in silico* de efectos saludables de los nutrientes, así como la justificación mecanística de dichas acciones.
- Definición de biomarcadores/principios activos implicados en la prevención de enfermedades (enfermedad cardiovascular o enfermedades neurodegenerativas)

## METABOLÓMICA

Estudio de los metabolitos presentes en muestras biológicas (biofluidos, tejidos, células) con el objetivo de obtener un perfil de todos los metabolitos presentes en las muestras para conocer el efecto que produce un estímulo particular en una ruta metabólica determinada

## PROTEÓMICA

Conjunto de técnicas que permiten identificar y caracterizar las proteínas expresadas en distintos estados metabólicos, con el fin de establecer biomarcadores de salud o enfermedad.

La integración de las tres herramientas anteriores ofrece importantes avances en los estudios de biodisponibilidad y eficacia biológica *in vivo*, para el análisis de muestras biológicas que permitan profundizar en el estudio de la influencia de los ingredientes sobre marcadores de exposición (absorción y metabolización= biodisponibilidad) y de prevención de riesgos de enfermedades (CVD, enfermedades neurodegenerativas, etc)

## Health claims applications

### QUALITY OF WORDING

The claimed effect **must be relevant** to human health.

- ✓ The Panel can consider that there has been no evidence provided to establish that the claimed effect is a beneficial physiologic effect
- ✓ The Panel can consider the claimed effect general and non-specific, which does not comply with the criteria of 1924/2006
- ✓ The Panel can consider that the claimed effect may be a beneficial physiological effect.
- ✓ The Panel can consider that the claimed effect is a beneficial physiological effect

### SOME EXAMPLES

No evidence provided	Antioxidant content (phytochemicals)
Non-specific claim	Healthy ageing (phytochemicals)
May be a beneficial effect	Protection of DNA, proteins and lipids from oxidative damage (phytochemicals)
Is a beneficial effect	Contribution to normal neurological and physiological functions (vitamins)

## Criteria for good markers

- Markers should be feasible (i.e. measurable in easily accessible material or obtainable using ethical or minimally invasive methodology), valid, reproducible, sensitive and specific, plausibly linked to the phenomena involved in the biological process being studied and should represent relatively immediate outcomes that can be used to assess interventions in a reasonable timescale.
- Markers should be rigorously internally validated to establish sensitivity (the frequency of a positive test result when the effect is present), specificity (the frequency of a negative test result when the effect is absent) and reproducibility in different centres.
- Markers should be generally accepted in the scientific field as valid in relation to the function and/or disease risk.
- The effect measured by the selected marker should be physiologically and statistically significant.



## “HARD” BIOMARKERS

Well accepted by EFSA.  
Includes, among others,  
those of PASSCLAIM.

Examples:

- ✓ Reduction of blood cholesterol
- ✓ Reduction of blood glucose
- ✓ Reduction of glucose post-prandial

Phosphatidylcholinehydroperoxides for DNA oxidation  
(accepted in EFSA decisions)

## “SOFT” BIOMARKERS

Biomarkers well known by the scientific committee. Must not be accepted by EFSA if they are not well validated

- ✓ Urinary 8OH-DG (rejected in EFSA decision for AlgaTrium)
- ✓ Antiinflammatory agents (PPAR, TNFalpha, etc)

## “NEW” BIOMARKERS

As defined by ILSI.

- ✓ Neuroimage technologies
- ✓ Transcriptomics
- ✓ Proteomics
- ✓ Methabolomics



## “SAFETY” BIOMARKERS

HOLISTIC APPROACH

# Evidenciación de los efectos fisiológicos: Parametrización y estandarización de los estudios de intervención en humanos

# **BEYOND PASSCLAIM – GUIDANCE TO SUBSTANTIATE HEALTH CLAIMS ON FOODS**



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SUMMARY REPORT OF A WORKSHOP HELD IN DECEMBER 2009

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Organised by the ILSI Europe Functional Foods Task Force

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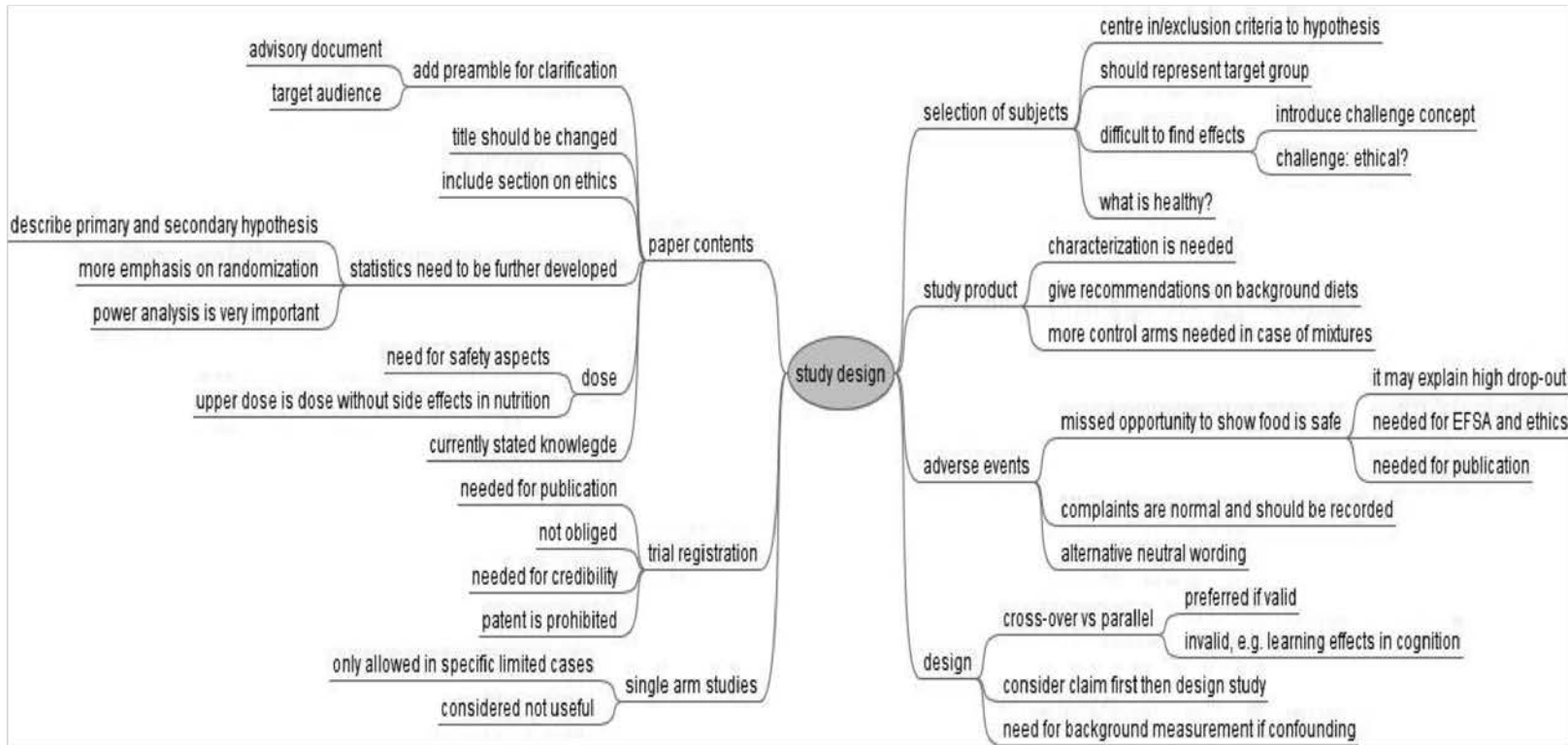


Figure 1. Mind-map of discussion points covered in the "Study-design" session.

# Guidelines for the Design, Conduct and Reporting of Human Intervention Studies to Evaluate the Health Benefits of Foods



UCAM

Robert W. Welch<sup>1</sup>, Jean-Michel Antoine<sup>2</sup>, Jean-Louis Berta<sup>3</sup>, Achim Bub<sup>4</sup>, Jan de Vries<sup>5</sup>, Francisco Guarner<sup>6</sup>, Oliver Hasselwander<sup>7</sup>, Henk Hendriks<sup>8</sup>, Martin Jäkel<sup>9</sup>, Berthold V. Koletzko<sup>10</sup>, Chris C. Patterson<sup>11</sup>, Myriam Richelle<sup>12</sup>, Maria Skarp<sup>13</sup>, Stephan Theis<sup>14</sup>, Stéphane Vidry<sup>13</sup> and Jayne V. Woodside<sup>11</sup>

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13. *ILSI Europe a.i.s.b.l., Avenue E. Mounier 83, Box 6, BE-1200 Brussels, Belgium*
14. *Südzucker/BENEÓ Group, Wormserstrasse 11, DE-67283 Obrigheim, Germany*



Commissioned by the  
ILSI Europe Functional Foods Task Force



# Diseño de estudios de intervención

## Hacia un nuevo enfoque



CONSORT Group - Windows Internet Explorer

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The CONSORT Group

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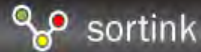
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# SI: Secciones



beta

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## Title and abstract

How participants were allocated to interventions (e.g., "random allocation", "randomized", or "randomly assigned").

## Consort description

In the abstract, description of the experimental treatment, comparator, care providers, centers, and blinding status

## Non pharmacological treatment

Table 1. Checklist of Items for Reporting Trials of Nonpharmacologic Treatments\*

Section	Item	Standard CONSORT Description	Extension for Nonpharmacologic Trials
Title and abstract	1	How participants were allocated to interventions (e.g., "random allocation," "randomized," or "randomly assigned").	In the abstract, description of the experimental treatment, comparator, care providers, centers, and blinding status.
Introduction	2	Scientific background and explanation of rationale.	
Methods	3	Eligibility criteria for participants and the settings and locations where the data were collected.	When applicable, eligibility criteria for centers and those performing the interventions.
Participants	4	How participants were allocated to interventions (e.g., "random allocation," "randomized," or "randomly assigned").	When applicable, details of both the experimental treatment and comparator.
Interventions	4A	How participants were allocated to interventions (e.g., "random allocation," "randomized," or "randomly assigned").	Description of the different components of the interventions and, when applicable, descriptions of the procedure for tailoring the interventions to individual participants.
	4B	How participants were allocated to interventions (e.g., "random allocation," "randomized," or "randomly assigned").	Details of how the interventions were standardized.
	4C	How participants were allocated to interventions (e.g., "random allocation," "randomized," or "randomly assigned").	Details of how adherence of care providers with the protocol was assessed or enhanced.
Objectives	5	Specific objectives and hypotheses.	
Outcomes	6	Clearly defined primary and secondary outcome measures and, when applicable, any methods used to enhance the quality of measurements (e.g., multiple observations, training of assessors).	
Sample size	7	How sample size was determined and, when applicable, explanation of any interim analyses and stopping rules.	When applicable, details of whether and how the clustering by care providers or centers was addressed.
Randomization sequence generation	8	Method used to generate the random allocation sequence, including details of any restriction (e.g., blocking, stratification).	When applicable, how care providers were allocated to each trial group.
Allocation concealment	9	Method used to implement the random allocation sequence (e.g., numbered containers or central telephone), clarifying whether the sequence was concealed until interventions were assigned.	
Implementation	10	Who generated the allocation sequence, who enrolled participants, and who assigned participants to their groups.	
Blinding (masking)	11A	Whether or not participants, those administering the interventions, and those assessing the outcomes were blinded to group assignment.	Whether or not those administering co-interventions were blinded to group assignment.
	11B†		If blinded, method of blinding and description of the similarity of interventions.
Statistical methods	12	Statistical methods used to compare groups for primary outcome(s), methods for additional analyses, such as subgroup analyses and adjusted analyses.	When applicable, details of whether and how the clustering by care providers or centers was addressed.
Results	13	Flow of participants through each stage (a diagram is strongly recommended)—specifically, for each group, report the number of participants randomly assigned, receiving intended treatment, completing the study protocol, and analyzed for the primary outcome; describe protocol deviations from study as planned, together with reasons.	The number of care providers or centers performing the intervention in each group and the number of patients treated by each care provider or in each center.
Implementation of intervention	14	Details of the experimental treatment and comparator as they were implemented.	
Recruitment	15	Details of the experimental treatment and comparator as they were implemented.	
Baseline data	16	Number of participants (denominator) in each group included in each analysis and whether analysis was by "intention-to-treat," state the results in absolute numbers when feasible (e.g., 10/20, not 50%).	When applicable, a description of care providers (case volume, qualification, expertise, etc.) and centers (volume) in each group.
Numbers analyzed	17	For each primary and secondary outcome, a summary of results for each group and the estimated effect size and its precision (e.g., 95% confidence interval).	
Outcomes and estimation	18	Adds multiplicity by reporting any other analyses performed, including subgroup analyses and adjusted analyses, indicating those prespecified and those exploratory.	
Auxiliary analyses	19	All important adverse events or side effects in each intervention group.	
Adverse events	20	Interpretation of the results, taking into account study hypotheses, sources of potential bias or imprecision, and the dangers associated with multiplicity of analyses and outcomes.	In addition, take into account the choice of the comparator, lack of or partial blinding, and unequal expertise of care providers or centers in each group.
Discussion	21	Generalizability (external validity) of the trial findings.	Generalizability (external validity) of the trial findings according to the intervention, comparator, patients, and care providers and centers involved in the trial.
Overall evidence	22	General interpretation of the results in the context of current evidence.	

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here is no information for this section.

## Comments

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\* Additions or modifications to the CONSORT checklist. CONSORT = Consolidated Standards of Reporting Trials.

† This item anticipates a planned revision in the next version of the standard CONSORT checklist.

# PASSCLAIM

## PROCESS FOR THE ASSESSMENT OF SCIENTIFIC SUPPORT FOR CLAIMS ON FOODS

### Consensus on Criteria

#### Authors:

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D. J. G. Müller<sup>8</sup>, C. Persin<sup>9</sup>, L. T. J. Pijls<sup>5</sup>, G. Rechkemmer<sup>10</sup>, S. Tuijelaars<sup>5</sup> and H. Verhagen<sup>11</sup>

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A European Commission Concerted Action Programme  
Supported by the European Commission, Quality of Life and  
Management of Living Resources Programme,  
Key Action 1: Food, Nutrition and Health

Coordinated by  
The European branch of the  
International Life Sciences Institute – ILSI Europe



**Table 1.** Checklist: factors to be considered, and recommendations for best practice when designing, conducting and reporting human intervention studies to evaluate the health benefits of foods

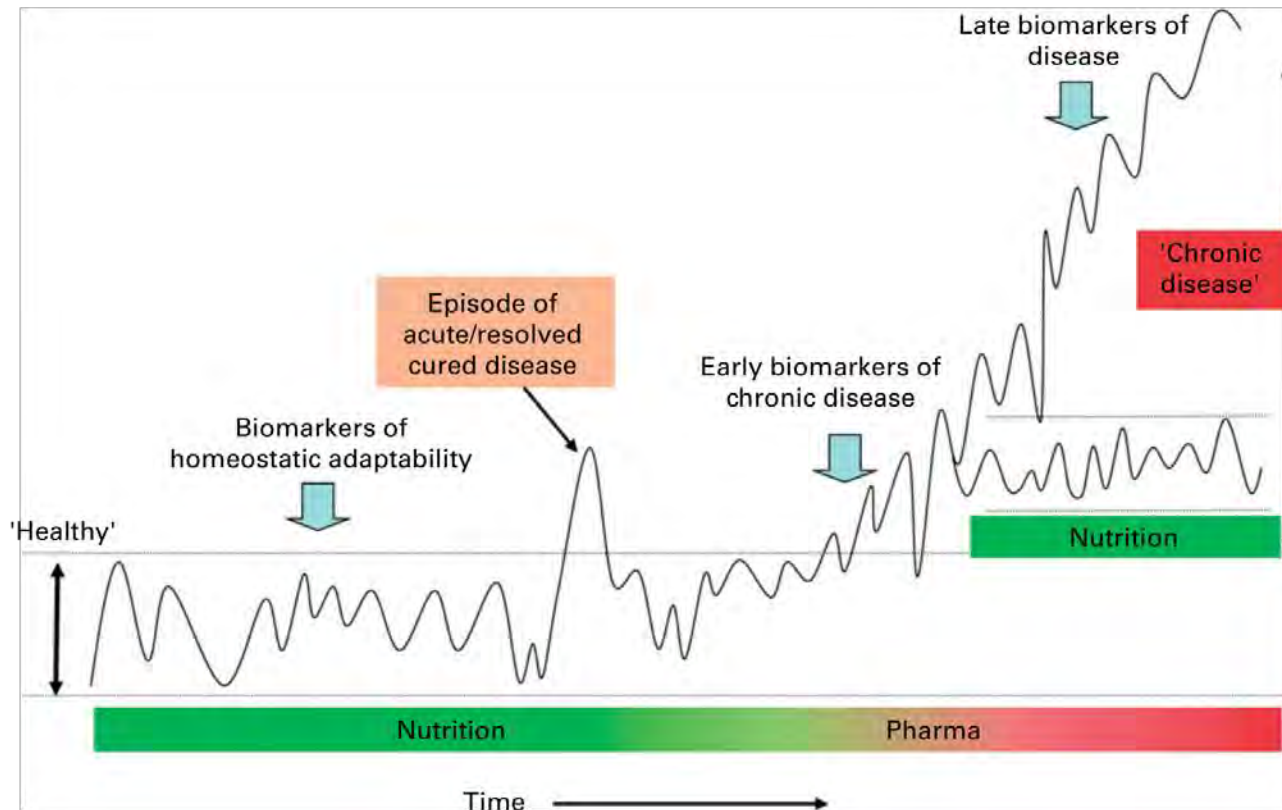
Phase	Factors to consider	Recommendations for design and conduct	Recommendations for reporting
Design	Hypothesis	Clear hypothesis	Explicitly state hypothesis, link to primary outcome measures
	Study design	Appropriate design	Clearly describe, with rationale
	Duration	Appropriate to design, intervention and outcome measures	Clearly describe, with rationale
	Intervention	Test and control products suitably matched	Describe test and control products in detail, with rationale
	Amount	Appropriate to outcome measures and to practical usage	Clearly describe, with rationale
Conduct	Outcome assessment	Define primary outcomes and methods of measurement	Clearly describe how and when assessed and link to hypothesis
	Eligibility criteria	Define all secondary outcomes and methods of measurement Define all eligibility criteria	Clearly describe how and when assessed Describe criteria using objective, quantitative descriptors where possible
	Statistical considerations		
	Randomisation	Use randomised design where possible and ensure appropriate method for allocation sequence generation and concealment	Clearly describe randomised design and the methods used for randomisation, sequence generation and concealment
	Blinding	Ensure double blinding if feasible, single blinding if not	Describe how blinding was achieved (who was blinded and how), report success rate
	Size of study	Conduct power calculation based on primary outcome measures	Include all elements of power calculation
	Study protocol		
	Ethical approval and trial registration	Obtain full ethical approval, register trial, comply with the Declaration of Helsinki	Give details of research ethics authority and approval number, and database and registration number
	Recruitment	Define recruitment strategy and process, including settings and dates	Explicitly describe strategy, provide participant flow diagram
	Data collection		
Analysis and interpretation	Background diet and monitoring change	Select suitable methods to collect and analyse data	Describe assessment and analysis methods, report descriptive data on background diet and changes for all components that may be relevant by allocated intervention group
	Background health status and lifestyle, and monitoring changes	Define relevant measures, select suitable methods of assessment	Justify relevant measures, describe assessment methods, and report relevant factors and changes by allocated intervention group
	Unintended effects	Devise strategy and methods to capture data	Report methods to assess unintended effects and report by allocated intervention group
	Adverse events	Have mechanisms in place to record and respond to adverse events	Clearly define and report all adverse events by allocated intervention group
	Compliance	Define acceptable levels of compliance, use appropriate strategies to maximise compliance, select and use rigorous but feasible methods for assessment of compliance	Report methods used to measure and maximise compliance, report compliance rates numerically and by allocated intervention groups
	Statistical analysis	Devise appropriate analysis methods, based on study design and outcome measures	Describe distribution of data, present descriptive characteristics by allocated intervention group, present hypothesis tests for comparing allocated intervention groups, make clear distinction between primary v. secondary endpoint analyses, state whether analysis ITT or PP
	Discussion and interpretation	Consider study limitations and generalisability of findings	Discussion of limitations and generalisability of study findings
	Conclusion	Relate directly to hypothesis, study design, test product and study participants	Clear statement of conclusion

# Diseño paralelo o cross-over (cruzado)

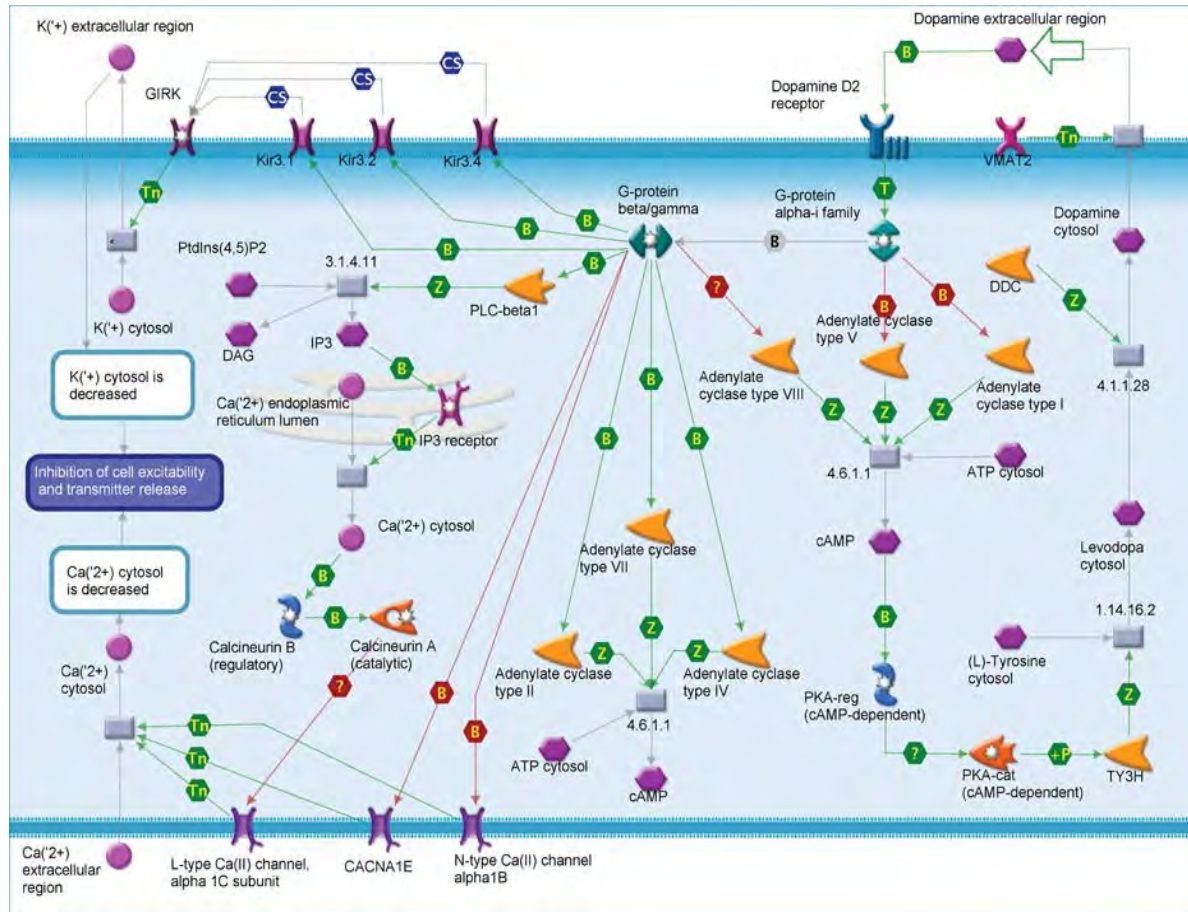
- **Paralelo:**
- Cada grupo de pacientes en el estudio recibe tratamientos diferentes. Droga contra placebo o contra otra medicación.
- **Cross-over:**
- Cada paciente recibe todas las intervenciones en períodos sucesivos. Debe diferenciarse del fenómeno del cross-over durante los estudios (el paciente requiere ser cambiado de tratamiento por necesidades clínicas, lo que constituye habitualmente un punto final)
- Requiere: enfermedades crónicas incurables, el efecto de las intervenciones debe ser rápido y de corta duración, la condición de la enfermedad debe ser estable (carry over, period effect....)
- **Factorial**
- Evalúa dos o mas tratamientos en la misma población en forma aleatoria y simultánea. Ejemplo: Estudio GISSI Prevenzione. Evalúa vitamina E contra placebo, y suplemento de n3-PUFA contra placebo en pacientes posinfarto. Delimita cuatro grupos: placebo-placebo, Vitamina E- Placebo, Vitamina E - n3 PUFA, n3 PUFA-placebo. Lo idea es que los tratamientos tengan poca interacción entre sí.



# Elegir marcadores



**Fig. 2.** Biomarker patterns in relation to homeostatic adaptability. Schematic depiction of the concept of physiological balance and the significance of biomarker patterns for various stages of development in time from normality (homeostasis), via dysfunction, to chronic disease. An organism maintains homeostasis for as long as possible by changes in its metabolic pathway dynamics. Nutrition aims to support this homeostasis. Chronic disease develops when an organism (individual) is no longer able to maintain homeostatic processes within a certain limit and may require intervention. A disease process can either further deteriorate or stabilise at a new homeostatic state.



+

- EFSA
- Passclaim (biomarkers)
- Scientific Journals
- omics data

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# Guidance for Industry

## Alzheimer's Disease: Developing Drugs for the Treatment of Early Stage Disease

### ***DRAFT GUIDANCE***

**This guidance document is being distributed for comment purposes only.**

Comments and suggestions regarding this draft document should be submitted within 60 days of publication in the *Federal Register* of the notice announcing the availability of the draft guidance. Submit electronic comments to <http://www.regulations.gov>. Submit written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number listed in the notice of availability that publishes in the *Federal Register*.

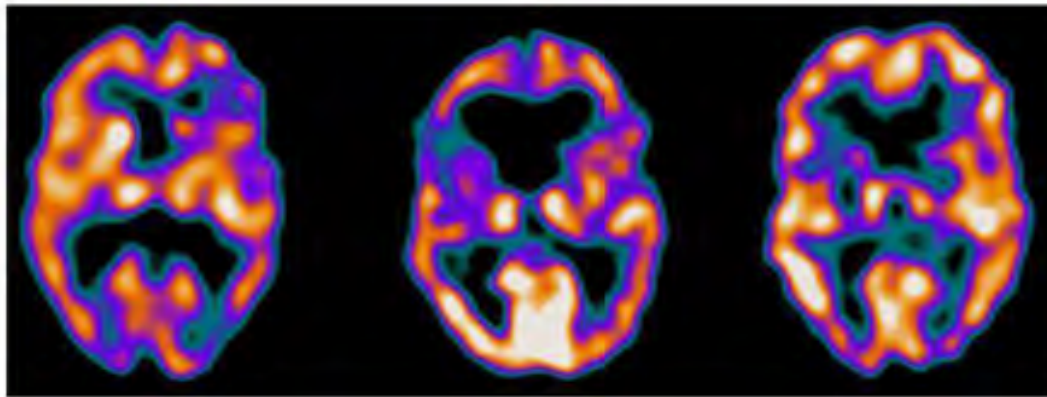
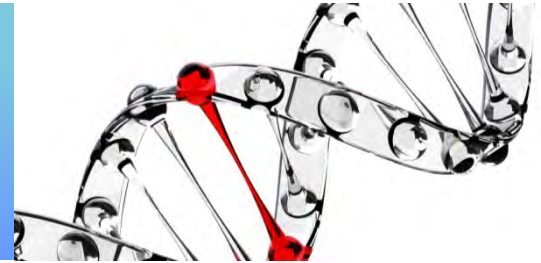
For questions regarding this draft document contact Nicholas Kozauer at 301-796-2250.

U.S. Department of Health and Human Services  
Food and Drug Administration  
Center for Drug Evaluation and Research (CDER)

February 2013  
Clinical/Medical

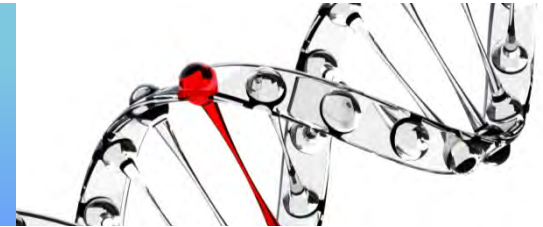
# Imaging Technologies

Para demostrar la eficacia de ingredientes



# Imaging Technologies

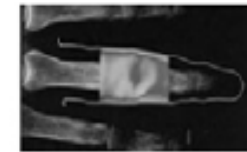
Para demostrar la eficacia de ingredientes



## *Clinical Imaging Technologies*

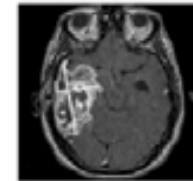
### **Optical Tomography (OT)**

Light detection technology of transmitted near-infrared light intensities



### **Magnetic Resonance Imaging (MRI)**

Technology based on relaxation properties of magnetic excited hydrogen nuclei



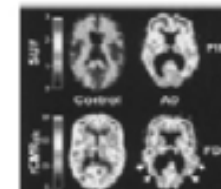
### **Computer Tomography (CT)**

Two-dimensional X-ray images taken around a single axis of rotation



### **Positron Emission Tomography (PET)**

Technique detects decay of short-lived radioactive tracer isotopes





# Imaging Technologies

Para demostrar la eficacia de ingredientes



## Neuroimaging studies of the cerebellum: language, learning and memory

John E. Desmond and Julie A. Fiez

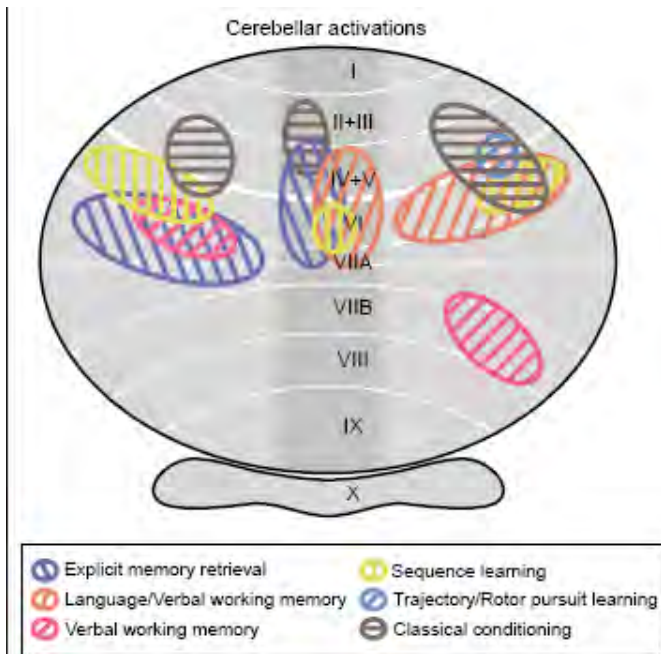
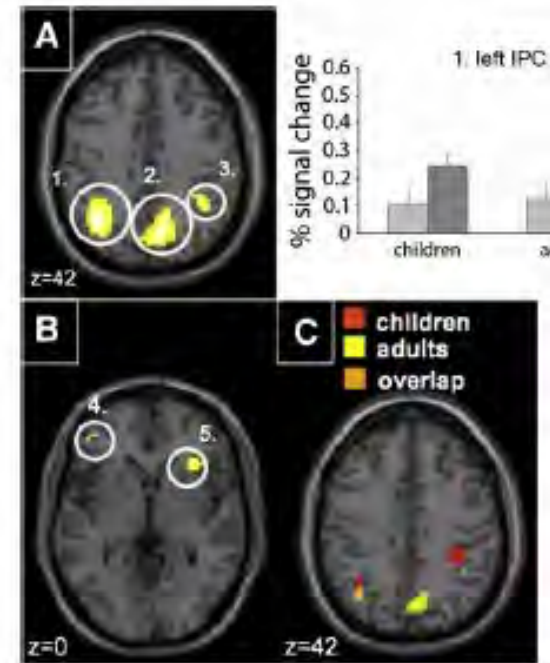


Fig. 1 Schematic diagram of the unfolded cerebellum illustrating the locations of activations described in this review. Roman numerals appearing in the cerebellar vermis

Learning to appreciate others: Neural development of cognitive perspective taking

M. Dosch<sup>a,\*</sup>, T. Loenneker<sup>a,b</sup>, K. Bucher<sup>a</sup>, E. Martin<sup>a,b</sup>, P. Klaver<sup>a</sup>



Zonas activadas en relación con la empatía  
(situarse en la perspectiva del otro)

# Imaging Technologies

Para demostrar la eficacia de ingredientes



VIER

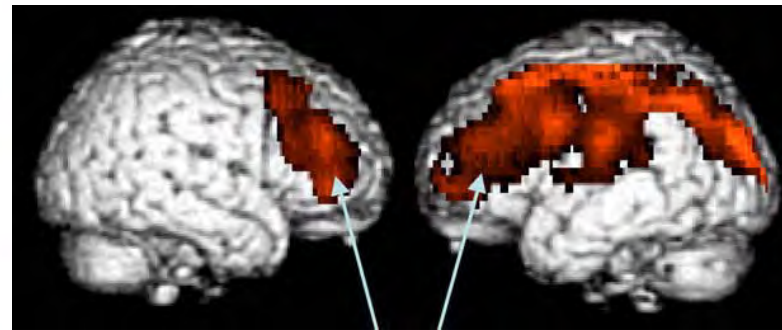
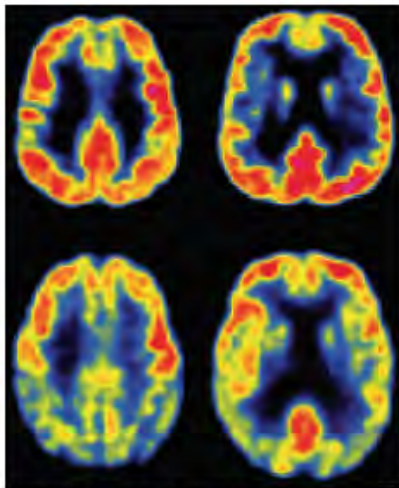
Psychiatry Research: Neuroimaging 148 (2006) 75–92

www.elsevier.com/locate/...

Review article

Social brain dysfunctions in schizophrenia: A review of neuroimaging studies

Eric Brunet-Gouet<sup>a,\*</sup>, Jean Decety<sup>b</sup>



PFC

Zonas activadas en relación con el insomnio

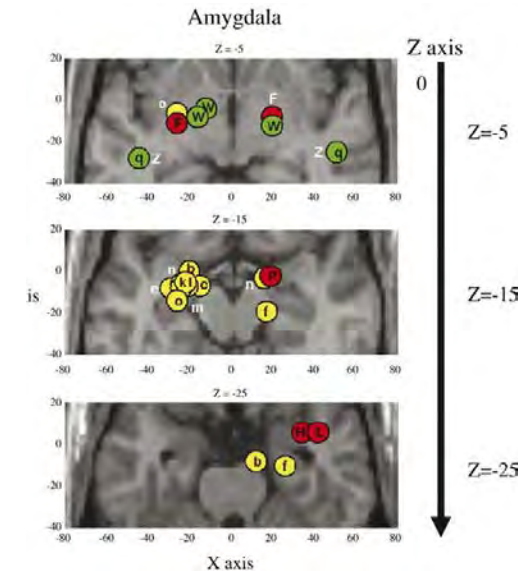


FIG. 3. FDG-PET data from an older control subject (top) and a patient with probable Alzheimer's disease (bottom), illustrating prominent temporoparietal hypometabolism. Figure courtesy of Keith Johnson, M.D. (Massachusetts General Hospital, Boston, MA).

## Neuroimaging and sleep medicine

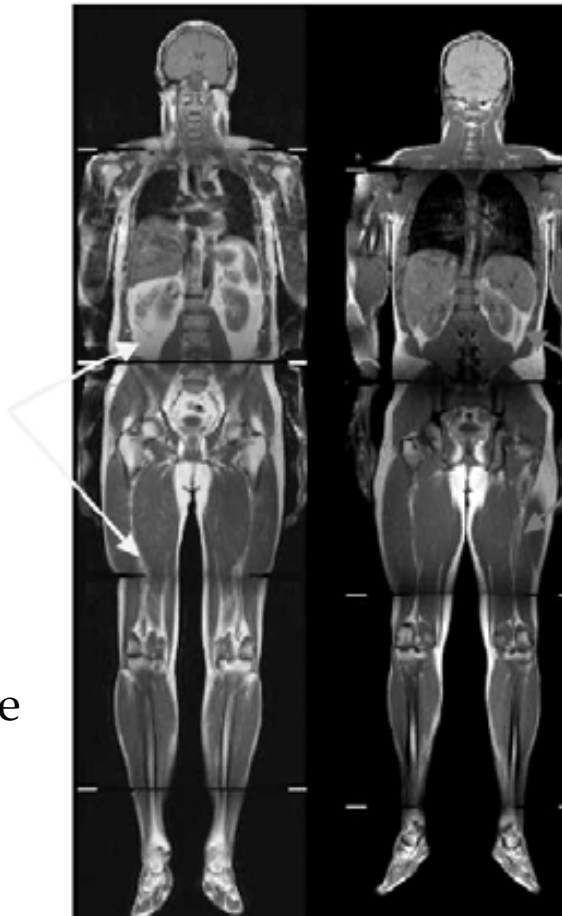
Eric A. Nofzinger<sup>\*</sup>

# Imaging Technologies

Para demostrar la eficacia de ingredientes



5.86 litres of  
internal Fat



1.65 litres of  
internal fat

Imágenes por Resonancia Magnética de la distribución de grasa en dos individuos. Se puede correlacionar la distribución de la grasa con riesgo de diabetes.

**Enrollment**

Assessed for  
eligibility (n = ...)

Excluded (n = ...)

Not meeting  
inclusion criteria  
(n = ...)

Refused to participate  
(n = ...)

Other reasons (n = ...)

Randomised (n = ...)

**Allocation**

Allocated to intervention  
(n = ...)

Received allocated  
intervention (n = ...)

Did not receive allocated  
intervention  
(give reasons) (n = ...)

Allocated to intervention  
(n = ...)

Received allocated  
intervention (n = ...)

Did not receive allocated  
intervention  
(give reasons) (n = ...)

**Follow up**

Lost to follow up (n = ...)  
(give reasons)

Discontinued intervention  
(n = ...) (give reasons)

Lost to follow up (n = ...)  
(give reasons)

Discontinued intervention  
(n = ...) (give reasons)

**Analysis**

Analysed (n = ...)

Excluded from analysis  
(give reasons) (n = ...)

Analysed (n = ...)

Excluded from analysis  
(give reasons) (n = ...)

## STATISTICAL METHODS PLANNED AND DETERMINATION OF SAMPLE SIZE:

### 1. *Study subsets*

### 2 *Handling of missing values*

### 3 *Variables*

#### 3.1 Demographic characteristic, pre-randomisation and baseline

#### 3.2 Efficacy variables

##### 3.2.1 Primary efficacy variable

##### 3.2.2 Secondary efficacy variables

##### 3.2.3 Additional efficacy variables

#### 3.3 Safety outcomes

### 4 *Statistical methods*

#### 4.1 Descriptive analysis

#### 4.2 Inferential analysis

#### 4.3 Demographic characteristic, pre-randomisation and baseline

#### 4.4 Analysis of efficacy

##### 4.4.1 Main analysis of efficacy

##### 4.4.2 Secondary analysis of efficacy

##### 4.4.3 Additional exploratory analysis of efficacy

#### 4.5 Subgroup analysis

#### 4.6 Safety analysis

##### 4.6.1 Biochemistry, haematology and minerals

##### 4.6.2 Adverse events

##### 4.6.3 Physical examination

##### 4.6.4 Physical activity

##### 4.6.5 Concomitant medication



### ICH E9 Statistical Principles for Clinical Trials:

- "In some instances an adjustment for the influence of covariates ... is an integral part of the **planned analysis and hence should be set out in the protocol**. Pre-trial deliberations should identify those covariates and factors ... and how to account for these. ... Special attention should be paid to the role of baseline measurements of the primary variable."

### CHMP Nov 2003. Points to consider on adjustment for baseline covariates:

- "Baseline imbalance itself should not be considered an appropriate reason to include a baseline measure as a covariate."
- "When the analysis is based on a continuous outcome there is commonly the choice whether to use the raw outcome or the change from baseline. Whichever is chosen, the baseline value should be included as a covariate in the primary analysis"
- "The functional form that relates the covariates to the outcome should be pre-specified and justified."

*Drug Information Journal*, Vol. 31, pp. 1157–1166, 1997  
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Copyright © 1997 Drug Information Association Inc.

# **GOOD STATISTICS PRACTICE IN THE DRUG DEVELOPMENT AND REGULATORY APPROVAL PROCESS**

**SHEIN-CHUNG CHOW, PhD**

Executive Director, Biostatistics and Data Management, Covance, Inc., Princeton, New Jersey

## SCIENTIFIC OPINION

### Scientific and technical guidance for the preparation and presentation of an application for authorisation of a health claim (revision 1)<sup>1</sup>

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA)<sup>2</sup>

European Food Safety Authority (EFSA), Parma, Italy

#### ABSTRACT

The scientific and technical guidance of the EFSA Panel on Dietetic Products, Nutrition and Allergies for the preparation and presentation of an application for authorisation of a health claim presents a common format for the organisation of information for the preparation of a well-structured application for authorisation of health claims which fall under Article 14 (referring to children's development and health, and to disease risk reduction claims), or 13(5) (which are based on newly developed scientific evidence and/or which include a request for the protection of proprietary data), or for the modification of an existing authorisation in accordance with Article 19 of Regulation (EC) No 1924/2006 on nutrition and health claims made on foods. This guidance outlines: the information and scientific data which must be included in the application, the hierarchy of different types of data and study designs (reflecting the relative strength of evidence which may be obtained from different types of studies) and the key issues which should be addressed in the application to substantiate the health claim. © European Food Safety Authority, 2011.

#### KEY WORDS

Health claims, Regulation, food, substantiation, human data, comprehensive review, application, guidance.

<sup>1</sup> On request from the European Commission, Question No EFSA-Q-2007-066, adopted on 06 July 2007. Revision on request from EFSA, Question No EFSA-Q-2011-00215, adopted on 13 May 2011.

<sup>2</sup> Panel members: Carlo Agostoni, Jean-Louis Bresson, Susan Fairweather-Tait, Albert Flynn, Ines Golly, Hannu Korhonen, Pagona Lagiou, Martinus Lovik, Rosangela Marchelli, Ambroise Martin, Bevan Moseley, Monika Neuhauser-Berthold, Hildegard Przyrembel, Seppo Salminen, Yolanda Sanz, Sean (J.J.) Strain, Stephan Strobel, Inge Tetens, Daniel Tomé, Hendrik van Loveren and Hans Verhagen. Correspondence: [nda@efsa.europa.eu](mailto:nda@efsa.europa.eu)

Suggested citation: EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA); Scientific and technical guidance for the preparation and presentation of an application for authorisation of a health claim (revision 1). EFSA Journal 2011;9(5):2170. [36 pp.]. doi:10.2903/j.efsa.2011.2170. Available online: [www.efsa.europa.eu/efsajournal](http://www.efsa.europa.eu/efsajournal)

## TECHNICAL REPORT

### Outcome of a public consultation on the Draft Opinion of the EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA) on general guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims<sup>1</sup>

European Food Safety Authority<sup>2, 3</sup>

European Food Safety Authority (EFSA), Parma, Italy

#### SUMMARY

The European Food Safety Authority (EFSA) carried out a public consultation to receive input from the scientific community and all interested parties on a draft briefing document for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims. This document constitutes a combined and updated version of the frequently asked question document related to the assessment of Article 14 and 13.5 applications, and of the briefing document for Member States and the European Commission on the evaluation of Article 13.1 health claims. The written public consultation for this document was open from 17 May 2010 to 1 June 2010, and the document was also discussed, together with the comments received during the public consultation, at a technical meeting with stakeholders on 1 June 2010 in Parma. EFSA received comments from 53 interested parties including applicants for health claims, non-governmental organisations, industry organisations and academia. EFSA and its NDA Panel wish to thank all stakeholders for their very useful contributions. The current report summarises the outcome of the public consultation including a brief summary of the comments received, and of how the comments were addressed. The draft EFSA briefing document has now been transformed into a Panel output, and the NDA Panel has prepared an updated version of the briefing document - now called general guidance document - taking into account the questions/comments received. The updated general guidance document was discussed and adopted at the NDA Plenary meeting on 23-25 March 2011 and is published in the EFSA Journal.

<sup>1</sup> On request from EFSA, Question No EFSA-Q-2011-00285, issued on 25 March 2011.

<sup>2</sup> Correspondence: [nda@efsa.europa.eu](mailto:nda@efsa.europa.eu)

<sup>3</sup> Acknowledgement: EFSA wishes to thank the members of the NDA Panel for the support provided to this output: Carlo Agostoni, Jean-Louis Bresson, Susan Fairweather-Tait, Albert Flynn, Ines Golly, Hannu Korhonen, Pagona Lagiou, Martinus Lovik, Rosangela Marchelli, Ambroise Martin, Bevan Moseley, Monika Neuhäuser-Berthold, Hildegard Przyrembel, Seppo Salminen, Yolanda Sanz, Sean (J.J.) Strain, Stephan Strobel, Inge Tetens, Daniel Tomé, Hendrik van Loveren and Hans Verhagen.

Suggested citation: European Food Safety Authority; Outcome of a public consultation on the Draft opinion of the EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA) on general guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims. Supporting Publications 2011:141. [9 pp.]. Available online: [www.efsa.europa.eu](http://www.efsa.europa.eu)

## SCIENTIFIC OPINION

### General guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims<sup>1</sup>

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA)<sup>2</sup>

European Food Safety Authority (EFSA), Parma, Italy

#### SUMMARY

The European Food Safety Authority (EFSA) asked the Panel on Dietetic Products, Nutrition and Allergies (NDA) to provide general guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims of Regulation (EC) No 1924/2006 which harmonises the provisions that relate to nutrition and health claims, and establishes rules governing the Community authorisation of health claims made on foods. This general guidance is a combined and updated version of two previous briefing documents (frequently asked question document related to the assessment of Article 14 and 13.5 health claim applications, and a briefing document for Member States and the European Commission on the evaluation of Article 13.1 health claims). This guidance document summarises the general principles applied by the NDA Panel in the evaluation of health claims, and covers issues such as the totality of available scientific evidence, pertinent studies for substantiation of health claims, wording of claims, the extent to which a food needs to be characterised for the claimed effect, claimed effects which are beneficial physiological effects, definition of a risk factor for the development of a human disease, compliance/eligibility issues for health claims, and procedural aspects. The guidance document (previously called briefing document) was subject to public consultation (17 May 2010 to 1 June 2010), and was also discussed at a stakeholder meeting on 1 June 2010. The general guidance document represents the views of the NDA Panel based on the experience gained to date with the evaluation of health claims, and it may be further updated as appropriate as additional issues are addressed.

#### KEY WORDS

Health claims, scientific requirements, Article 13 claims, health claims applications, general principles.

<sup>1</sup> On request from EFSA, Question No EFSA-Q-2011-00216, adopted on 25 March 2011.

<sup>2</sup> Panel members: Carlo Agostoni, Jean-Louis Bresson, Susan Fairweather-Tait, Albert Flynn, Ines Golly, Hannu Korhonen, Pagona Lagiou, Martinus Lovik, Rosangela Marchelli, Ambroise Martin, Bevan Moseley, Monika Neuhäuser-Berthold, Hildegard Przyrembel, Seppo Salminen, Yolanda Sanz, Sean (J.J.) Strain, Stephan Strobel, Inge Tetens, Daniel Tomé, Hendrik van Loveren and Hans Verhagen. Correspondence: [nda@efsa.europa.eu](mailto:nda@efsa.europa.eu)

Suggested citation: EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA); General guidance for stakeholders on the evaluation of Article 13.1, 13.5 and 14 health claims. EFSA Journal 2011;9(4):2135. [24 pp.]. doi:10.2903/j.efsa.2011.2135. Available online: [www.efsa.europa.eu/efsajournal](http://www.efsa.europa.eu/efsajournal)



## ESTUDIO DE LOS PRINCIPIOS QUE REGULAN LA EVALUACIÓN DE LAS APLICACIONES PARA LA OBTENCIÓN DE DECLARACIONES DE SALUD RELACIONADAS CON LA FUNCIÓN INMUNE

### 3.1. DOCUMENTOS RELEVANTES

#### a) Comisión Europea/EFSA

- Reglamento (CE) núm. 353/2008 de la comisión de 18 de abril de 2008 por el que se establecen normas de desarrollo para las solicitudes de autorización de declaraciones de propiedades saludables con arreglo al artículo 15 del Reglamento (CE) no 1924/2006 del Parlamento Europeo y del Consejo, D.O.U.E serie L núm. 109, pág.11, de 19 de abril de 2008.
- Scientific and Technical Guidance for the Preparation of the Application for Authorisation of a Health Claim, adoptado por el panel de la NDA el 6 de julio de 2007, *The EFSA Journal* (2007) 530, 1-44.
- Frequently Asked Questions (FAQ) related to the EFSA assessment of Article 14 and 13.5 health claims applications, *The EFSA Journal* 2009; 7(9):1339.
- Briefing Document for Stakeholders on the evaluation of Article 13.1, 13.5 and 14 Health Claims, *The EFSA Journal*, (2010)
- Guidance on the Scientific Requirements for Health Claims Related to Gut and Immune Function, *The EFSA Journal* (2010)
- Guidance on Using Authorised Nutrition and Health Claims in Accordance with Regulation (EC) 1924/2006.

**a) Documentos seleccionados de otras Agencias Nacionales no europeas**

- Guidance Document for Preparing a Submission for Food Health Claims, Bureau of Nutritional Sciences Food Directorate, Health Products and Food Branch Health Canada, March 2009.
- Guidance for Industry: Evidence-Based Review System for the Scientific Evaluation of Health Claims – Final, Center for Food Safety and Applied Nutrition January 2009.
- Informação Nutricional e Alegações de Saúde: O Cenário Global das Regulamentações, Agencia Nacional de Vigilancia Sanitaria – Organização Pan-Americana da Saúde/Organização Mundial da Saúde, Termo de Cooperação n.º 37, Brasília 2006.

**b) International Life Science Institute**

- Beyond PASSCLAIM – Guidance to Sustainiate Health Claims on Foods, ILSI Europe Report Series, Summary report of a WorkShop held in december 2009.
- Emerging Technologies for Efficacy Demonstration, ILSI Europe Report Series, Summary report of a WorkShop held in february 2009.

# Documentos a tener en cuenta

- ***Regulatory Documents***

- Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95)
- [European Directive for the implementation of GCP](#) 2001/20/EC
- Directive 95/46/EC of the European Parliament and of the council of 24 October 1995
- Guidance for Industry. Part 11, Electronic Records; Electronic Signatures – Scope and Application (August 2003)
- Guidance for Industry. Computerized Systems Used in Clinical Investigations (May 2007)

- ***Documents with normative character***

- EMEA. Reflection on expectations for electronic source documents used in clinical trials. London, 17 October 2007

- ***Documents with recommendation***

- The draft “Implementation of Good Clinical Practice Software” by JM Lauritsen, University of Southern Denmark (02/2007)
- The policy document of the German Coordinating Centres for Clinical Trials networks (October 23<sup>rd</sup> 2001, updated December 20<sup>th</sup> 2007)
- Good Clinical Data Management Practice, Version 4, SCDM, October 2005

- ***Glossaries***

- Glossary in “Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95)”
- CDISC Clinical Research Glossary, Version 6.0
- CDISC Acronyms, Abbreviations, and Initials, Version 6.0

# MUCHAS GRACIAS POR SU ATENCIÓN

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