



PEGASUS

Public Perception of Genetically Modified Animals - Science Utility and Society

The Challenge

Foods and pharmaceutical products derived from genetically modified (GM) animals have not yet entered the European market. Nonetheless, the ongoing discussion about GM crops, and recent societal debate about the safety and ethics of foods and pharmaceutical products derived from cloned animals have set the stage for dialogue that will surround the introduction of GM animals. Policy development needs to take account of societal concerns and preferences if a successful development and implementation strategy is to be developed.

Historically, Europe has had a leading role in the development of cloned and GM animals, but despite considerable European innovations occurring in the area of GM animal technology, many current activities in the field of GM food animals take place outside the EU. Nevertheless, the EU is the world's largest international trading block for food commodities, and it can be assumed that, in the future, GM animals will enter the European food supply chain through imports. An extensive literature already exists regarding public perceptions of GM animals applied to food production. Similarly, extensive research literature relating to technological advances, potential economic impact, and ethical concerns, also exists. The PEGASUS project recognises that these need to be translated into concrete policy support. Policy recommendations need to be developed using expertise from both the social and life sciences. There is a need "map" of current public perception and technological literature regarding GM food animals. PEGASUS focuses on existing data, collected through literature review, desk research, interviews and workshops. Desk research and expert consultation will be employed to study the socio-economic, ethical and technical aspects, including perceived pros and cons of GM foods.

Project Objective

The general aim of PEGASUS is to provide policy support regarding the development and commercialisation of GM animals, and derivative foods and pharmaceutical products, by:

- Aiding the EU's policy assessment of the relevant research programmes and commercial application of these GM animals together with the foods and pharmaceutical products derived from them.
- Identifying ethical concerns regarding their introduction, and societal barriers to commercialisation.
- Identifying issues raised as part of the technology appraisal process.



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EATiP Thematic Area of Relevance

TA1: Product Quality, Consumer Safety and Health

TA2: Technology and Systems

TA3: Managing the Biological Lifecycle

TA4: Sustainable Feed Production

TA5: Integration with the Environment

TA6: Knowledge Management

TA7: Aquatic Animal Health and Welfare

TA8: Socio-Economics and Management

Key Words

GM - food, - animals, - derivative pharmaceutical products: advantages and disadvantages, , public perception, risk and benefits

Project Information

Contract number:

226465

Contract type:

36 months (01/08/2009 – 31/07/2012)

Research area:

KBBE - Exploring the pros & cons and the public perception of GM animals

Duration:

Support actions

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Key Points

- To identify current and future technical developments in the area of genetic modification applied to animals and the importance for the (future) competitiveness of European animal production
- To identify consumer perceptions associated with genetic modification in animals (both aquatic and terrestrial species) and derived food products by integrating national and European data
- To provide insight into the economic dimensions of using genetically modified (GM) animals in the food production chain (feed industry, breeding industry, primary sector, processing industry)
- To produce an overview of the risks and benefits associated with including GM animals or products in the food chain, from the point of view of life sciences (human and animal health, environmental impact, animal welfare, sustainable production).
- To collate the documented ethical concerns raised by various stakeholder groups, academics and commentators
- To identify policy gaps and recommend the policy options
- To provide an integrated analysis of public concerns and preferences for the strategic development and application of genetic modification applied to animals, including the food derived from them
- To identify future European research needs regarding GM animals, specifically identifying areas within the agri-food sector

Key New Knowledge Expected

Taking into account public perceptions, the competitiveness of EU animal production, and risk-benefit assessments linked with human and animal health, environmental impact, and sustainable production, the results of PEGASUS will provide European policy with information about the advantages and disadvantages of regarding GM animals and the food and pharmaceutical products derived from them. These outcomes will contribute to, and inform, current EU effort focused on further developing the FP7 Knowledge Based Bio Economy (KBBE), and contribute to obtaining its strategic objectives.

Potential Impacts



Policy

- Identification of the advantages and disadvantages of GM animals from the perspectives of the production chain and the life sciences for both aquatic and terrestrial production. Definition of best practice in public engagement in the policy process.
- Provision of European policy support regarding GM animals and the foods and pharmaceuticals products derived from them, taking into account public perceptions, the competitiveness of EU animal production, and risk-benefit assessments linked with human and animal health, environmental impact, and sustainable production.
- Stakeholder consultations and meetings with policy makers will enable further feedback on the project's outcomes and further refinement of the recommendations for EU policy makers.
- Public participation events will be conducted to demonstrate the positive use of public engagement on policy development.
- Dissemination of results to the EU policy community.

Related Publications/Projects

SEAT, SPEAR, Safefoods

- Cope, S., Frewer, L.J., Houghton, J. Rowe, G., Fischer, A. R.H. and de Jonge, J.(2010). Consumer perceptions of best practice in food risk communication and management: implications for risk analysis policy. *Food Policy*, 35, 4, August 2010, 349-357.
- Gupta, N. Fischer, R.H. and Frewer. L.J. (in press). Socio-Psychological Determinants of Public Acceptance of Technologies: A Review. *Public Understanding of Science*.
- Van Dijk, H., Fischer, A. R. H., De Jonge, J., Rowe, G., & Frewer, L. J. (in press). The impact of balanced risk-benefit information and prior attitudes on post-information attitudes. *Journal of Applied Social Psychology*.