



EUROPEAN
COMMISSION

Community Research

The Sixth Framework programme (2002-2006)

Priority 5: “Food Quality and Safety”

Projects to be funded following the 1st call for proposals (2003)

- Part 1: List of topics covered by the call*
- Part 2: summaries of topics and corresponding proposals¹*
- Part 3: summaries of Specific Support Actions (SSAs)*

¹ **remarks:**

Project names and acronyms, and participants' names cannot be revealed until contract negotiations have been completed.

The number of participants is indicative and may change during the negotiation phase.

FP6 – priority 5: “Food Quality and Safety” – topics funded in the 1st call (2003)

Areas/ topics addressed	Approach*
Area 5.4.1 Total food chain	
Topic 1 <i>Food from low input and organic production systems: Ensuring the safety and improving quality along the whole chain</i>	IP
Topic 2 <i>Quality seafood for improved consumer health and well-being</i>	IP
Topic 3 <i>Pathogen free production systems</i>	STREP
Area 5.4.2 Epidemiology of food-related diseases and allergies	
Topic 5 <i>Validated food information database for Europe</i>	not funded
Topic 6 <i>Influence of nutrition and lifestyle on healthy ageing aimed at preventing adult degenerative disease</i>	STREP & CA
Area 5.4.3 Impact of food on health	
Topic 10 <i>Functional genomics in relation to food, nutrition and health</i>	NoE
Topic 11 <i>Lipid metabolism and the metabolic syndrome</i>	IP
Topic 12 <i>Health risks from heat-treated foods and food products</i>	STREP
Topic 13 <i>Food safety, risk assessment and communication</i>	IP
Area 5.4.4 “Traceability” processes along the production chain	
Topic 17 <i>Development of reliable traceability methods and systems to establish the origin/ mode of production of food products</i>	not funded
Area 5.4.5 Methods of analysis, detection and control	
Topic 18 <i>Prevention and control of zoonoses including food borne diseases</i>	NoE
Topic 19 <i>Prevention, control and management of prion diseases</i>	NoE
Topic 20 <i>Development of quantitative risk assessment strategies based on probabilistic, genomic and profiling approaches including a risk-benefit evaluation for novel foods</i>	STREP
Area 5.4.6 Safer and environmentally friendly production methods and technologies and healthier food stuff	
Topic 24 <i>High throughput analysis of plant composition and metabolism for optimising end-product quality in the plant food chain</i>	not funded
Topic 25 <i>Improved strategies in animal welfare for improved food quality</i>	IP
Topic 26 <i>Genomics of host-pathogen interactions in animals</i>	NoE
Topic 27 <i>Improved crop protection systems based on biological control methods for safer low-input production systems</i>	STREP (2)
Topic 28 <i>Antibiotic resistance in animals, plants and humans</i>	STREP
Topic 29 <i>Disease risk from alternative and enriched cage and free-range systems</i>	not funded
Topic 30 <i>Simulation modeling for improved crop establishment in low-input systems</i>	not funded
Area 5.4.7 Impact of animal feed on human health	
Topic 39 <i>New strategies to improve grain legumes for food and feed</i>	IP
Topic 40 <i>Alternatives to antimicrobials in feed</i>	STREP (2)
Area 5.4.8 Environmental health risks	
Topic 41 <i>Health implications of exposure to chemical residues in the environment</i>	NoE
Topic 42 <i>Allergy and asthma</i>	NoE
Topic 43 <i>Neurotoxic effects of environmental contaminants</i>	STREP
Topic 44 <i>Effects of environmental exposure to complex chemical mixtures</i>	STREP

* types of instrument used to fund research on this topic:

IP = Integrated project

NoE = Networks of Excellence

STREP = Specific Targeted Research Project

CA = Co-ordinated Action

} New instruments

} Traditional instruments

FP6 – priority 5: “Food Quality and Safety” Proposals short-listed for funding

Topic 1 - Food from low input and organic production systems: ensuring the safety and improving quality along the whole chain

(From 2002 Work programme:) The objective of this topic is to improve the quality and safety, and to reduce the production costs from foods derived from lower input and organic food production systems. The activities will cover the full chain from consumer to farm.

This **Integrated Project** (33 participants) aims to lead to new technologies and systems for organic and low input production systems. One of its strengths is a matrix structure whereby the research will encompass the whole food chain from fork to farm for a number of sectors including protected crops (tomato), field vegetables (lettuce), fruit (apple), cereal (wheat), pork, dairy and poultry. It addresses consumer attitudes and expectations, impact of organic foods on nutritional, sensory, microbiological and toxicological quality/safety of foods, development of new technologies and identification of socio-economic, environmental and sustainability impacts of innovations. This project has the scientific rigour to provide the meaningful information that is lacking on the extent to which differences in production systems affect nutritional value, taste and safety of food. It is expected to make a significant impact on increasing the competitiveness of the organic industry in a number of sectors to the benefit of the European consumers.

Topic 2 - Quality seafood for improved consumer health and well-being

The objective of this topic is to provide evidence from dietary intervention, epidemiological and toxicological studies concerning the benefits and risks of seafood for human health and well being. Via comprehensive risk analysis, research will contribute to the development of safe, nutritious and high-quality tailor-made seafood products by addressing the whole chain from farmed and wild fish, including freshwater, to the consumer.

This **Integrated Project** (80 participants) aims to reduce health problems and to increase well-being among European consumers by applying the benefits obtained through consumption of health promoting and safe seafood products of high eating quality. The relevance of seafood in the diet to diminish the higher incidences of cardiovascular, cancer and inflammatory diseases for instance will be assessed by performing dietary intervention and epidemiological studies. Seafood's importance for consumer well-being and behaviour will be assessed to understand determinants of consumers' seafood consumption and to adapt seafood products to consumer demands. The objectives of the seafood safety component are to make seafood safe for the consumer, by identifying risk factors and to undertake risk-benefit analysis. Validated traceability systems will be assessed to make it possible to apply a total chain approach from the live fish to the consumer product, and to trace back any feature from fork-to-farm.

Topic 3 - Pathogen free production systems

The aim of this topic is to maximise the safety of foods of animal origin by designing and testing novel approaches for the development of production systems that are as free as possible from human pathogens, for example Salmonella and Listeria. The systems will take into consideration the maintenance of high levels of animal welfare and the need to reduce, as much as possible, the use of antibiotics.

Salmonella in broiler poultry remains the major source of infection for man and is the least tractable due to the immunological immaturity of broilers at the young age at which they are slaughtered. Previous EC funded research (project FAIR 984006) has demonstrated that intestinal colonisation of newly-hatched chicks with live, attenuated Salmonella vaccine strains results in the development of resistance to intestinal infection and also to tissue invasion. This Specific Targeted Research Project (**STREP**) will exploit these phenomena by screening strains of Salmonella for these phenotypes, attenuating them and assessing their protective effect in broilers under experimental and simulated field conditions. In addition, it will explore the potential of new biotechnological approaches to the elimination of pathogenic bacteria from the chicken intestine. It will also explore the use of bacteriophages to control intestinal infection and reduce carcass contamination and use these in association with vaccine strains to test a combined approach to pathogen elimination.

Topic 6 - Influence of nutrition and lifestyle on healthy ageing aimed at preventing adult degenerative disease

This topic involves epidemiological studies on the influence of diet and lifestyle on healthy ageing, aimed at preventing adult degenerative disease, particularly focusing on cardiovascular diseases and also addressing malnutrition of the elderly.

Two proposals cover this topic: one **Concerted Action** and one **STREP**.

The primary aim of the **Concerted Action** is to improve the quality of life of the frail elderly. It aims to improve understanding of how diet can promote healthy ageing. The global objectives of this project are to co-ordinate research into the nutrition of the frail elderly; to improve their quality of life; to reduce public health costs through the prevention of nutrition-related diseases; and to encourage the development of nutritionally-balanced food products which are specially designed for the elderly.

The **STREP** will study biochemical, genetic and lifestyle implications for healthy ageing and in particular the nutritional impact of zinc. Some antioxidant micronutrients in the diet, such as zinc, control the development and function of the immune cells, the activity of stress-related proteins and antioxidant enzyme and help to maintain genomic integrity and stability, thus suggesting diet-gene interactions. During ageing, the intake of zinc decreases due to inadequate diet or/and intestinal malabsorption, thus causing frailty, general disability and increased incidence of age-related degenerative diseases (cancer, infections and atherosclerosis). No focused research has been performed thus far to clarify these relationships. The project will examine the role of zinc on the immune system and on the health of elderly people in particular. Zinc deficiency in the elderly will be evaluated and the results will form a rationale for the promotion of healthy ageing through a zinc supplementation and for the development of new zinc-related anti-ageing drugs.

Topic 10 - Functional genomics in relation to food, nutrition and health

The aim of this topic is to apply genomics, transcriptomics, proteomics and metabolomics to assess genetic variation between individuals in relation to nutrient-gene interaction. Expected results include technological platforms for the integration of facilities and databases.

This **Network of Excellence** (20 participants) aims to integrate and develop nutritional genomics in Europe. Nutrition and health research is focussed on the prevention of disease by optimising and maintaining cellular, tissue, organ and whole-body homeostasis. This requires understanding, and ultimately regulating, a multitude of nutrient-related interactions at the gene, protein and metabolic levels. This project will enable nutrition research to fully complement the biomedical and pharmacological research communities that are currently using genomics for the development of curative therapy. A key objective of the network will be the development, data warehousing and exploitation of nutrition and health-related bioinformatics for the benefit of European nutrition researchers, and for the community as a whole.

Topic 11 - Lipid metabolism and the metabolic syndrome

The aim of this topic is to investigate routes for the modification of dietary fats affecting risk factors for the metabolic syndrome. It should take account of genotypic variation between individuals in dietary responsiveness via controlled human dietary intervention studies. Optimised sources and blends of fatty acids will be developed.

The focus of this **Integrated Project** (24 participants) is the interaction between dietary fat composition and genotype in the metabolic syndrome. This disorder is associated with overweight and obesity and is characterised by insulin resistance, dyslipidaemia and hypertension. Access to a large prospective cohort, together with clinical and nutritional data, provides a unique opportunity to determine diet-gene interaction in the development of the metabolic syndrome. A large multi-centre dietary intervention study will examine responsiveness to dietary fat modification, varying in both fat content and composition, influence insulin sensitivity and other aspects of the metabolic syndrome. A key aim of the project is to improve the fat composition of milk and meat products (animal nutrition) and to provide novel sources of fatty acids (plant biotechnology). An economic analysis of the costs associated to the metabolic syndrome will be undertaken, while consumer attitudes will be analysed.

Topic 12 - Health risks from heat-treated foods and food products

The aim of this topic is to explore different hazardous compounds, which could be formed by heat treatment and other food processing methods, based on international collaboration and including communication issues. Their mechanisms of formation, the development, improvement, validation and harmonisation of methods of analysis, bio-availability, toxicity, biomarkers of exposure and effect as well as exposure assessment will be involved. Reduction and elimination technologies, milder processing conditions and comparative risk assessment studies should also be addressed.

This **STREP** focuses on, identification, characterisation and risk minimisation of heat-generated food toxicants. Research has showed that heating of meat and other protein rich foods can generate various kinds of potentially hazardous compounds, some of which are genotoxic and carcinogenic. The focus of this project is recently discovered health risks associated with hazardous compounds in heat-treated carbohydrate-rich foods where substantial amounts of acrylamide and similar compounds can be formed. It will explore their mechanisms of formation, impact of raw material composition, inhibiting factors, cooking and processing methods in industry and households, with the aim to control and minimise the formation of hazardous compounds. Compounds that are potential health hazards, such as acrylamide, unsaturated carbonyl compounds and furans, formed during heating, will be studied.

Topic 13 - Food safety, risk assessment and communication

This topic is aimed at identifying ongoing and emerging food safety and nutritional issues along the food chain based on an in-depth analysis of national and regional food safety perspectives. The research will aim towards developing risk assessment and communication strategies founded on perceptions of risk assessors and various risk assessment approaches.

This **Integrated Project** addresses the issue of how consumer confidence in consumer protection and risk analysis can be restored and strengthened. The proposed research attempts to improve current risk analysis practices for foods produced by different breeding approaches and production practices deploying high and low input systems. The research activities will result in designing new effective procedures for risk analysis underpinned by new scientific assessment methods, and embedded in a broad impact analysis of social, financial and economic consequences, and with high levels of transparency, active public engagement and improved risk communication.

Topic 18 - Prevention and control of zoonoses including food borne diseases

The aim of this topic is to create a durable integration of key research groups of complementary disciplines, both medical and veterinary, in the field of food safety, particularly focussing on emerging diseases and classical zoonoses (including food borne disease and water-related zoonoses) covering such aspects as epidemiology, pathogenesis, detection and control, and risk assessment. This should support cost effective prevention and control strategies. Risk assessment approaches will also be facilitated.

Diseases naturally transmitted from animals to man, termed zoonoses, constitute major public health risks and generate emerging disease problems. Such diseases, especially when food borne, have significant social and financial impacts in Europe and need to be addressed across the whole food supply chain.

The overall objective of this **Network of Excellence** (10 participants) is to integrate veterinary, medical and food scientists in the field of food safety at European level, in order to improve research on the prevention and control of zoonoses, including food borne diseases, while taking into account the public health concerns of consumers and other stakeholders throughout the food chain. The network comprises 5 veterinary and 5 public health institutes in 8 European countries. All partner institutes have national reference laboratory-based responsibilities for the prevention and control of zoonoses. The network will develop activities to enable integration, including structured and systematic communications, and training. The programme will address zoonotic agents selected on the basis of importance in Europe and covering four thematic areas: epidemiology, host-microbe interactions, detection and control and risk analysis.

Topic 19 - Prevention, control and management of prion diseases

The objective of this topic is to structure research activities carried out by major laboratories involved in transmissible spongiform encephalopathy (TSE) research. The joint programme of research activities will focus on prevention, control, treatment and risk analysis of TSEs.

This **Network of Excellence** (29 participants) is expected to provide European researchers with an effective communication strategy with the public, with policy makers and between themselves, allowing the sharing of prior, current and future knowledge. It is expected to provide better value for money from European and nationally funded research, allow the better exploitation of knowledge and promote a concerted European response to various issues or future TSE crises.

Topic 20 - Development of quantitative risk assessment strategies on probabilistic, genomic and profiling approaches including a risk-benefit evaluation for novel foods

The objective of this topic is to develop quantitative risk assessment strategies based on probabilistic and profiling approaches, and on functional genomics. This will allow the assessment and analysis of the effects of novel foods, that are needed to communicate meaningful information on benefits, risk, uncertainties and costs to consumers.

The objective of this **STREP** is to develop and validate the scientific methodology needed for quantitative risk assessment of "second generation" novel foods to be marketed in the EU in accordance with Directive 258/97. The project is designed to address both the risk assessment and the risk/benefit equation. It will include consumers and other stakeholders based upon an indicative consumer survey and communicate its findings to them.

Topic 25 - Improved strategies in animal welfare for improved food quality

The aim of this topic is the integration of research groups to build on European strength in the field of animal welfare and, ultimately, of improving production methods that take into account consumer demands for high standards of animal welfare, health and food quality.

This **Integrated Project** (48 participants) addresses these objectives and, importantly, pays particular attention to the “fork-to-farm” approach through establishing a strong society-science dialogue. In this context, appropriate and robust on-farm welfare assessment methodologies will be developed together with information frameworks and an array of targeted, high priority welfare improvements. The proposal brings together many important European players in a well-structured project that offers a real possibility for Europe to cement its position as a leader in farm animal welfare research.

Topic 26 - Genomics of host-pathogen interactions in animals

The objective of this topic is durable integration of research groups involved in functional animal genomics. A common technological platform will promote the use of genomic tools to clarify the mechanisms of the interactions between the host (all livestock species, including those used in aquaculture) and pathogen (including bacteria, viruses, parasites and prions).

This **Network of Excellence** (14 partners) will bring together sufficient excellence and resources to make a real difference to animal and human health, and improve the quality of animal products. Integrating activities will ensure that all partners have easy and durable access to the best available facilities, biological resources, technological platforms, software, analytical tools and knowledge. The joint research programme will ensure that this integration results in high quality research that is directed towards the most pressing issues, and presents the best opportunities to address European concerns. The network will: create a durable virtual laboratory in genomics of host-pathogen interactions; co-ordinate and orient European animal genomics and disease research; apply genomics as a tool to improve animal health, food quality and safety.

Topic 27 - Improved crop protection systems based on biological control methods for safer low-input production systems

The aim of this topic is to develop safer and high quality foods through improving crop protection systems based on biological control agents and/or semiochemicals for the control of pests, diseases and weeds in food crops.

Two **STREPs** cover this topic:

One **STREP** will study some of the already available or most promising biocontrol agents using a combination of strategies. In order to improve their efficacy the project will apply genetic and physiological enhancement strategies, assess ecological fitness, production, formulation and application methods, integration with other organisms and control methods. The project will also assess the risk of release of the enhanced organisms into the environment. This should allow wider use of fungal biocontrol agents in Europe and provide important new tools to support the production of safer and healthier foods.

The other **STREP** aims to develop safer, higher quality food by implementing improved crop protection systems based on wider application of the Sterile Insect Technique (SIT). SIT is based on mass production and release of sterile male insects, which mate with wild females, preventing the production of offspring, and causing the pest population to collapse. Medfly is a major pest of several key crops, notably citrus. Use of SIT against Medfly in the Americas has shown it to be a cost-effective and environmentally sound alternative to chemical insecticides. By replacing chemical insecticides, SIT can reduce chemical residue levels in food.

Topic 28 - Antibiotic resistance in animals, plants and humans

The aim of this topic is to co-ordinate the critical evaluation of the role of antibiotic use in animal and plant production and in the prophylaxis and treatment of disease in humans, on the level of antibiotic resistance in bacteria. In particular, it will assess the importance of the transfer of resistance to micro-organisms in humans through the use of antibiotics in animals, plants or other humans.

Despite concern that antibiotics use in the food chain contributes to the development of resistant bacteria, research has yet to provide the data necessary to develop an effective risk management strategy. This **STREP** will provide a critical evaluation of the role of antibiotic use in agriculture and in the prophylaxis and treatment of disease in humans. Unlike other studies, focused on pathogens, this project is focused on non-pathogenic bacteria, including industrially important bacteria used as starter cultures for fermented food. Within this project the importance of these bacteria as a source of antibiotic resistance genes will be assessed. It will also examine the transmission of resistance in the environment and in the animal and human gut and establish the genetic basis of the detected resistances and transmission mechanisms. Dissemination of results and links with consumers' organisations will be provided; an industrial platform will assure the link with industries producing starter cultures.

Topic 39 - New strategies to improve grain legumes for food and feed

Grain legumes can provide high quality plant proteins for animal feed and human food, but are underused. The genetic improvement of grain legumes requires work on optimising feed to meet the nutritional requirements of livestock, on the reduction of mycotoxins, and on dietary intervention, toxicology, and risk analysis in human health. Thus a multidisciplinary approach is essential.

This **Integrated Project** (66 participants) will mobilise and integrate European scientific research on grain legumes by addressing the following objectives; i) to identify optimal parameters for legumes in feed and food quality and safety, including GMOs, while using legumes to develop healthy and sustainable agriculture, ii) to investigate variation in grain legume seed composition and the factors affecting it, iii) to develop new genetic, genomic, post-genomic and bioinformatic tools to improve and sustain grain legume seed production and quality. To achieve objectives the project will integrate an ambitious combination of approaches, including biochemistry, plant & crop physiology, agronomy, plant genomics & breeding, and human nutrition & health studies. Particular emphasis will be placed upon the use of state-of-the-art methodologies including genomics and bioinformatics, together with transcriptomics and metabolomics.

Topic 40 - Alternatives to antimicrobials in feeds

This topic will examine the potential of using plant extracts and other natural substances not considered harmful for human or animal health, as alternatives to antimicrobials, including antibiotics, used as prophylactic and growth promoting agents in livestock. It will aim to produce definitive platforms for the rational production of useful products and to link together current research groups working in this field.

Two **STREPs** cover this topic:

The first **STREP** will examine plants, plant extracts and other natural materials as safe alternatives to feed antimicrobials. The materials will be derived from samples of plant materials collected as possible feed additives for ruminants, plus some additional natural materials likely to be useful in non-ruminants. After identifying the most promising candidates for each target, a small number of samples will be taken to demonstration, proof-of-concept trials. The project will link fragmented research carried out with different animal species across Europe and provide a platform, via consultation with industry, farmers' and consumers' organisations, veterinarians, botanists, agronomists and economists, for the rational production of a new generation of natural feed additives. The main benefits will be a healthier, safer food chain, increased sustainability of animal agriculture and reduction in its detrimental effects on the environment.

The second **STREP** will develop plant extracts and other substances as natural alternatives to anti-microbials to control pig health and in particular to reduce losses from post-weaning infection, and to improve productivity. Many interacting factors play a role in this process, so various approaches will be used to address these. Specifically this will include determining the effect of a range of plant extracts, pre-biotics, Lactobacillus fermented feed and feed intake on their ability to reduce the need to use antibiotics in the post-weaned pig. Plant extracts will be evaluated and a representative group selected on the basis of their diverse range of activities. The plant extracts together with other experimental approaches will be characterised for their effect upon specific indicators of gut health. The results of these studies will form the basis for selection and testing for the ability to alter susceptibility to microbial challenge. Based on this ability, successful approaches will be evaluated in large-scale production trials.

Topic 41 - Human health implications of exposure to chemical residues in the environment

Research on this topic will focus on novel or improved analytical techniques for the measurement of inorganic and organic chemical residues, radioactive isotopes and pharmaceuticals in food, water, and the environmental sources linked to the food chain; improved assessment of health effects on humans, in particular sensitive groups.

This **Network of Excellence** (19 participants) seeks durable coordination and integration of European research on human health effects of chemical residues in the numerous chemicals, present at even low levels in the environment and food or drinking water, that interfere particularly with the function of a cellular structure called nuclear receptor, which, when perturbed by chemicals, is linked to development of cardiovascular disease, obesity, diabetes, decline in fertility, breast, prostate, colon cancer, neurodegenerative disease, etc. Assessing the risk for humans, especially women, new-born children, and other susceptible populations has proved difficult, owing to insufficient information on the mechanisms of action of these chemical residues, their levels in the food chain, differences in sampling techniques and lack of reliable biological markers. To address these issues competently and responsibly requires efficient integration of key areas of European research. Deliverables will include training programmes and provision of rationalised information for assessing the risk that these compounds pose to human health. It is also important that to channel scientific information of potential use to consumers and for implementation of legislative measures.

Topic 42 - Allergy and asthma

The aim of this topic is the durable integration of experimental and clinical research groups in the field of

allergy. Important fields for research co-ordination are the role of the foeto-maternal interface and early life events in the development of allergies.

This **Network of Excellence** (27 participants) will study allergy and asthma throughout the course of life, including intrauterine life and foeto-maternal interface, interaction between genetic and environmental factors in early life and development of allergies, via existing and new birth cohorts. It will establish an international network of European centres of excellence that will conduct specific integrated multidisciplinary research programmes on issues relating to environment (including outdoor and indoor pollution), nutrition, lifestyle (including occupation), infections and genetic susceptibility. Genetic and epidemiological studies will address gene-environment interactions that might underpin the dramatic increase in allergy rates in the EU in the last few decades. The work also encompasses, through region-specific epidemiological studies, the impact of nutritional status on allergic disposition, and the dissemination of information to patients and public, as a fundamental task to reduce the socio-economic burden of allergy and asthma.

Topic 43 - Neurotoxic effects of environmental contaminants

Research on this topic will aim at developing and providing methods, procedures, and models to detect and characterise environmental factors contaminating food (e.g. persistent organic pollutants and pesticide residues) affecting neuro-endocrine control systems in humans and animals. Special emphasis will be given to neurobehavioural development and neurodegenerative disease. The focus will be on interdisciplinary research approaches.

The aim of this **STREP** is to develop experimental models to investigate the effects of mixtures of persistent neurotoxic substances potentially contaminating food on the developing nervous system. The complexity of the topic and its aims require the use of relevant experimental approaches and the evaluation of a wide range of parameters on a panel of selected experimental models representing possible targets for the selected toxicants. The project uses a multidisciplinary approach, combining in vitro and in vivo experimental strategies. The dose-dependent effects of persistent pollutants, such as PCBs and methyl-mercury, on the developing nervous system and the long-term consequences will be evaluated. The results will generate novel information about the interactions of the selected neurotoxicants.

Topic 44 - Effects of environmental exposure to complex chemical mixtures

Research on this topic will focus on gathering evidence of possible links between combined chemicals exposure related to the food chain and human health effects, including mechanisms, with emphasis on cancers and other chronic diseases and various vulnerable subgroups of the population. Where relevant, effect markers and diagnostic tests will be developed allowing individualised assessment of risks in humans.

The main focus for this **STREP** is the potential health hazard of DNA damage, resulting from dietary exposures to polycyclic aromatic hydrocarbons (PAHs), its modulation by genetic factors, synergists and protective substances. DNA damage that is not repaired during cell proliferation represents initiating events that may result in neoplasia. Exposure from polycyclic aromatic hydrocarbons from some foods is sufficiently high to permit direct studies of such DNA lesions in humans. The project will provide new methods for assessing DNA damage as well as basic knowledge on different DNA repair mechanisms. The inhibiting effects of anti-carcinogens with respect to DNA damage and chromosomal aberrations induced by exposure to PAHs will also be assessed. In the area of public health, efforts will be made to promote a healthier diet for the general population.

FP6 – Priority 5: “Food Quality and Safety”

Specific Support Actions to be funded following 1st call for proposals (2003)

Issues addressed by Specific Support Actions (SSA)
<p><i>(From 2002 Work programme:)</i></p> <p>Emphasis will be placed on Specific Support Actions with the following objectives:</p> <ul style="list-style-type: none">· Achieving ERA objectives· Promotion of SME participation· Stimulating international co-operation· Linking with Candidate Countries· Supporting policy development· Stimulating exploitation· Contributing to the EU Strategy for Life Sciences and Biotechnology: Specific <p>Support Actions will be funded as necessary to implement any of the thirty actions listed in the Action Plan attached to COM(2002)27. Particular attention will be paid to support actions relating to the resource base: investing in education and training, research, exploitation of intellectual property, the capital base and networks in Europe; to governing life sciences and biotechnology: social scrutiny and dialogue, consideration of ethical values and societal goals and to those actions relating to the European response to global challenges: international collaborations, biotechnology and the developing world.</p>

Short list of SSAs to be funded following 1st call for proposals (2003)

SSA 1 - Managing access to and transfer of microbial resources

This SSA will develop a system for managing access to and transfer of microbial resources to facilitate the implementation of the Convention on Biological Diversity provisions on access and benefit sharing.

SSA 2 - Multimedia resources on European food science

This SSA aims to constitute a multimedia repository on European food science in order to narrow the gap between scientists and key stakeholders by using effective communication platforms that offer high impact value, such as television, the internet and publications.

SSA 3 - Optimising the milk supply chain in Central and Eastern European markets

The purpose of this SSA is to provide recommendations for the development of internationally competitive milk supply chains in terms of quality, safety and value in Central and Eastern European countries.

SSA 4 - A Code of Good Practice for farm animal breeding and reproduction

Through this SSA animal breeding and reproduction organisations will develop, discuss and implement a Code of Good Practice for farm animal breeding and reproduction.

SSA 5 - Training network for National Contact Points and support organisations with a focus on Candidate Countries in the areas of food quality and safety

The overall objective of the SSA is to raise the quantity and quality of research projects from participants as partners or co-ordinators - particularly from Candidate Countries - in all types of instruments, in Thematic Priority 5 "Food Quality and Safety" of FP6.

SSA 6 - Research and innovation in food technologies - European partnership and transfer of knowledge to Poland

The aim of this SSA is to promote partnership and technology transfer among the researchers and industry operating in the Polish food sector through participation in Priority 5 "Food quality and safety" research and development projects in FP6.

SSA 7 - Networking in Candidate Countries regarding food and human health

This SSA will provide a valuable support to the European Research Area in the field of food, gastro-intestinal tract functionality and human health by expanding forums to Candidate Countries to convey the objectives and outcomes of EU research projects.

SSA 8 - Enhancing safety of food - legislation, analysis and management, with ASEAN countries, through training & research.

This SSA aims at creating a network for international co-operation on food safety issues between Europe and Asia. The partners will set up the network, develop partnerships, organise workshops and courses on food safety, define the structure for a database for analytical methods, evaluate the food safety research agenda in an international perspective.

SSA 9 - Disseminating the results of EC-funded research on food quality and safety

This SSA will promote and facilitate the exploitation of European advances in plant and microbial biotechnology into products, processes and practices to improve food quality and safety and thus improve European health and wellbeing.

SSA 10 - Supporting animal science in Central Europe Candidate Countries

The overall objective of this SSA is to encourage and facilitate the participation of organisations from the animal science sector in the Candidate Countries in the activities of Priority 5 "Food Quality and Safety" of FP6.

SSA 11 - Integration of European food safety research from producers to consumers

This SSA will emphasise the results obtained in the area of food safety by selecting and evaluating projects supported in the Fifth and Sixth Framework Programmes. It proposes to co-ordinate food safety research policy in Europe with respect to national research policies, to identify and evaluate the emerging issues and open the way to future research. It will also provide the scientific background allowing better co-ordination and harmonisation of European food safety policies with those of other international institutions.

SSA 12 - Networking technology dissemination centres for SMEs in the olive and olive oil sector

The ultimate aim of this SSA is to reinforce the olive and olive oil industry, which is mainly composed of SMEs, in order to increase the prominence of olives and olive oil in the diet so as to promote health. This implies improving access to information on technological innovation with a view to optimising product quality and environmental impact.