

## **Health for all: understanding the ageing process Villa Guastavillani, Bologna 1-3 October 2014**

**Background:** The International Knowledge-Based Bio-Economy Forum (KBBE Forum) is a multipartner cooperation initiative between the European Commission (EC), Australia, Canada and New Zealand, that was launched in 2010. The aim of the KBBE Forum is to collectively address the global challenges that affect the Bio-economy such as guaranteeing food security while adapting to a changing climate, reducing the environmental impact of agriculture and industry, and maintaining an affordable, safe, healthy and nutritious food supply. The objectives are to complement the project-based cooperation with (i) a strategic programme level cooperation and policy-related discussions and (ii) scientific cooperation at multi-partner level in all bio-economy sectors in order to build a sustainable bio-based economy at global level.

One of the four working groups of the KBBE forum is related to "Food and Health". This Food and Health group brings researchers from the four KBBE forum parties together to address selected scientific issues, exchange people, information, and data with the aim to collectively address challenges of common interest and to achieve more concrete results.

**Meeting objectives:** The purpose of this workshop is to highlight the state of the science and identify innovative key research opportunities relevant to the process of ageing and the prolongation of an active, healthy and independent living of the elderly.

The emphasis will be on areas of research that could significantly benefit from partnership between academia, government and industry located in the EU, Canada, Australia and New Zealand.

The participants will:

- Network with key players that have a role in studying the ageing process from different perspectives, in order to allow the cross-fertilization among different subjects, which is a crucial feature for a long-lasting and profitable multidisciplinary approach.
- Consider research evidence of the determinants of the ageing process throughout the lifespan, across diverse populations. Evidence will include both individual-level influences as well as broader cultural, environmental and policy-related influences.
- Identify the most promising interventions that can be broadly implemented. The interventions should have a multidisciplinary approach including among others physiological, psychological, social-economic and cultural components to maintain an optimal health status during ageing.
- Identify key areas of research for future funding. The key areas will include specific research questions, associated challenges as well as opportunities for international collaboration and international partnership between academia, government and industry.

<b>1 October 2014 – Nutrition, inflammation and cognitive decline</b>	
<b>9.00</b>	<p><b>Welcome speech and opening session</b></p> <p><i>Chair: Patrizia Brigidi, IT</i>  <i>Rapporteur: Alexandra Tuijtelaars, EU</i></p> <ul style="list-style-type: none"> <li>• Rector, University of Bologna, IT (5 min)</li> <li>• Ministry of Research, IT (5 min)</li> </ul> <p><b>Perspectives of the KBBE Forum in the area of "Food and Health"</b></p> <p>Objective: To provide a brief overview of the "Food and Health" research priorities in the 4 KBBE partners and explain how the KBBE forum sees the future in order to set the ground for discussion</p> <ul style="list-style-type: none"> <li>• Isabelle de Froidmont-Görtz, EU (15 min)</li> <li>• Michele Marcotte, CA (15 min)</li> <li>• Nicole Roy, NZ (15 min)</li> <li>• Ingrid Appelqvist, AUS (20 min)</li> </ul> <p>Q&amp;A</p>
10.20	<p><b>Opening lecture</b></p> <p><i>Chair: Isabelle de Froidmont-Görtz, EU</i>  <i>Rapporteur: Mario Mazzochi, IT</i></p> <p>Objective: To provide a broad overview of the specific challenges of the ageing population, such as major demographic and socio-economic changes, which are expected to increase over the coming decades</p> <ul style="list-style-type: none"> <li>• Biocultural factors in longevity and ageing (Stanley Ulijaszek, UK – 30 min)</li> </ul> <p>Q&amp;A</p>
11.00	<p><b>Coffee break</b></p>
11.20	<p><b>Session 1: Nutrition, Inflammation and cognitive integrity in the elderly</b></p> <p><i>Chair: Isabelle de Froidmont-Görtz, EU</i>  <i>Rapporteur: Yolanda Sanz, ES</i></p> <p><b>Keynote lectures</b></p> <p>Objective: To provide a critical review in the field of nutrition, inflammation and cognitive integrity in the elderly in order to draft new and effective preventive strategies to improve healthy and independent elderly and reduce the number of ageing people requiring care.</p> <ul style="list-style-type: none"> <li>• Metaflammation and inflammaging (Claudio Franceschi, IT – 30 min)</li> </ul> <p>Q&amp;A</p> <ul style="list-style-type: none"> <li>• Preventing Alzheimer's dementia - Medical Food, the silver line between drugs and diet. The best of two worlds (Tobias Hartmann, DE – 30 min)</li> </ul> <p>Q&amp;A</p>

12.30	<b>Lunch</b>	
13.30	<p style="text-align: center;"><b>Parallel session</b></p> <p><i>Chair: Patrizia Brigidi, IT</i> <i>Rapporteur: Tobias Hartmann, DE</i></p> <p>Objective: To review scientific evidence on how nutrition, inflammation and other factors can influence the cognitive and physical decline in the elderly, with a particular emphasis on multidisciplinary and innovative strategies.</p> <ul style="list-style-type: none"> <li>Health claims legislation in EU and non-EU countries: Opportunities for healthy foods targeting the elderly (Yolanda Sanz, ES – 15 min)</li> </ul>	
15.00	<b>Coffee break</b>	
15.15	<p style="text-align: center;"><b>Discussions and brainstorming</b></p> <p><i>Objective:</i> Identify key areas of research for future funding, including specific research questions and associated challenges as well as opportunities for international collaboration including partnership between academia, government and industry</p>	
	<p><b>Dietary intervention for the prevention of decline in the elderly</b></p> <p><i>Chair: Patrizia Brigidi, IT</i> <i>Rapporteur: Tobias Hartmann, DE</i></p> <p><i>Discussion, Q&amp;A</i></p>	<p><b>New food products to support healthy ageing</b></p> <p><i>Chair: Beate Kettlitz, BE</i> <i>Rapporteur: Simone Maccaferri, IT -</i></p> <p><i>With the contribution from a selected number of EU and non-EU industries</i></p> <p><i>Discussion, Q&amp;A</i></p>

17.00	<b>Report from the parallel sessions</b> <ul style="list-style-type: none"> <li>Dietary intervention for the prevention of decline in the elderly – Patrizia Brigidi/Tobias Hartmann (10 min + Q&amp;A)</li> <li>New food products to support healthy ageing – Beate Kettlitz/Simone Maccaferri (10 min + Q&amp;A)</li> </ul>	
17.20	<b>Final wrap-up of the day and future perspective</b> ( <i>Chair: Ingrid Appelqvist, AUS</i> )	
17.30	<b>City tour followed by a welcome drink</b>	
<b>2 October 2014 – Understanding and prevention of physical decline</b>		
9.00	<b>Session 2: Lifestyle and healthy ageing</b> <i>Chair: Michele Marcotte, CA</i> <i>Rapporteur: Alexandra Tuijelaars, EU</i>  <b>Keynote lectures</b>  Objective: To provide an overview on how lifestyle factors (diet, physical activity, stressors, social habits, sleep, etc.) can influence healthy ageing (more independent mobility later in life with reduced fracture rates, reduced re-admissions and increased physical activity). <ul style="list-style-type: none"> <li>Sarcopenia of ageing and food strategies for improving muscle mass retention (David Cameron-Smith, NZ - 30 min)</li> </ul> Q&A <ul style="list-style-type: none"> <li>Malnutrition in the elderly: different determinants warrant different approaches (Stephane Schneider, FR – 30 min)</li> </ul> Q&A	
10.15	<b>Coffee break</b>	
10.45	<b>Session 3: The next challenge: discovering new biomarkers unravelling omics technologies and big data</b> <i>Chair: Nicole Roy, NZ</i> <i>Rapporteur: Ben Van Ommen, NL</i>  <b>Keynote lectures</b>  Objective: To highlight the added value of the application of biomarkers and new innovative technologies for an early detection of risk factors based on functional (cognitive and physical) capacities, behavioural data and frailty in order to extend active, healthy and independent living of the elderly. <ul style="list-style-type: none"> <li>Joint Programming Initiative: A healthy diet for a healthy life. How to promote healthy ageing? (Hannelore Daniel DE – 30 min)</li> </ul>	

	<ul style="list-style-type: none"> <li>Integrated vision of healthy ageing and systems biology (Ben Van Ommen, NL – 30 min )</li> </ul> <p>Q&amp;A</p>	
12.00	<b>Lunch</b>	
13.00	<p><b>Parallel session</b></p> <p>Objective: To review scientific evidence on how lifestyle factors, new technologies and new strategies can influence and prevent the cognitive and physical decline in the elderly</p>	
	<p><b>New technologies and health biomarkers to support better ageing</b></p> <p><i>Chair: Hannelore Daniel, DE</i> <i>Rapporteur: Sebastiano Collino, CH</i></p> <ul style="list-style-type: none"> <li>Gut Metagenomics and metatranscriptomics as new tools for health and well-being (Mark Morrison, AUS – 15 min)</li> <li>Biomarkers for healthy ageing and elderly nutritional monitoring. (<i>Sebastiano Collino, CH – 15 min</i>)</li> <li>Assessment of bone and joint structure and function in ageing: Imaging and biomarkers (Marlena Kruger, NZ -15 min)</li> </ul> <p>Q&amp;A</p>	<p><b>Strategies to promote a healthy lifestyle in elderly</b></p> <p><i>Chair: Klaus Grunert, DK</i> <i>Rapporteur: Jo Wills, BE</i></p> <ul style="list-style-type: none"> <li>How research and innovation can contribute to a EU policy on active and healthy ageing (Ines Garcia Sanchez, EU – 15 min)</li> <li>Cultures and Ageing (Ngaire Kerse, NZ – 15 min)</li> <li>Quebec Research Network on Aging (Pierrette Gaudreau, CAN – 15 min)</li> <li>Australian strategies for healthy ageing (Ingrid Appelqvist, AUS -15 min)</li> </ul> <p>Q&amp;A</p>
14.15	<b>Coffee break</b>	
14.45	<p style="text-align: center;"><b>Discussions</b></p> <p><i>Objective:</i> Identify key areas of research for future funding, including specific research questions and challenges as well as opportunities for international collaboration between academia, government and food industry</p>	
	<p><b>New technologies and health biomarkers to support better ageing</b></p> <p><i>Chair: Hannelore Daniel, DE</i> <i>Rapporteur: Sebastiano Collino, CH</i></p> <p><i>Discussion, Q&amp;A</i></p>	<p><b>Strategies to promote a healthy lifestyle in elderly</b></p> <p><i>Chair: Klaus Grunert, DK</i> <i>Rapporteur: Jo Wills, BE</i></p> <p><i>Discussion, Q&amp;A</i></p>
16.30	<p><b>Report from the parallel sessions</b></p> <ul style="list-style-type: none"> <li>New technologies and health biomarkers to support better ageing – <i>Hannelore Daniel/Sebastiano Collino (15 min + Q&amp;A)</i></li> <li>Strategies to promote a healthy lifestyle in elderly – <i>Klaus Grunert/Jo Wills (15 min + Q&amp;A)</i></li> </ul>	

17.00	<b>Final wrap-up of the day and future perspective</b> ( <i>Chair: Nicole Roy, NZ and Michele Marcotte, CA</i> )
20.30	<b>Social dinner</b>
<b>3 October 2014 – Tackling global challenges in the ageing society by an integrated multidisciplinary approach</b>	
9.00	<p><b>Session 3: Promoting well-being – the future is now</b></p> <p><i>Chair: Ingrid Appelqvist, AUS</i> <i>Rapporteur: Lisette De Groot, NL</i></p> <p><b>Keynote lectures</b></p> <p>Objective: To provide an overview on different factors (e.g. socio-economic, cultural, psychological factors, education determinants, ICT solutions and their acceptance, specific tailored policies) influencing healthy ageing and which might help to maintain the ageing population more independent. This session should aim at enhancing the role of the elderly in the society, enabling the community with a better understanding on how to integrate the determinants of healthy ageing into real-life conditions.</p> <ul style="list-style-type: none"> <li>• Influence of social, cultural, educational, economic factors on well-being and behaviour in the elderly (Klaus Grunert, DK - 20 min)</li> <li>• Opening up the market of Active Healthy Ageing by providing affordable unobtrusive ICT-enabled Mental, Physical and Social Wellbeing services. (Jean Gelissen H. A., ICT Labs - 20 min)</li> <li>• Social engagement, health policies and wellbeing in the elderly: tackling diversity to promote healthy ageing (Kate O'Loughlin, University of Sidney, AUS - 20 min)</li> <li>• Older Adults as an Integral part of Society; A Challenge for a Globalised Society (Neena Chappel, CA - 20 min)</li> </ul> <p>Q&amp;A</p>
11.00	<b>Coffee break</b>
11.15	<p><b>Roundtable: Tackling global challenges in the ageing society by an integrated multidisciplinary approach</b></p> <p><i>Objective:</i> Identify key areas of research for future funding, including specific research questions and challenges as well as opportunities for international collaboration between academia, government and food industry</p> <p><i>Chair: Claudio Franceschi, IT</i> <i>Rapporteur: Jo Wills, BE</i></p> <p><i>Discussion, Q&amp;A</i></p>
13.15	<b>Lunch</b>
14.30	<b>Session 4: Designing the future research agenda</b> ( <i>Chairs: Isabelle de Froidmont, Ingrid Appelqvist,</i>

	<p><i>Michele Marcotte, Nicole Roy</i></p> <ul style="list-style-type: none"><li>• Wrap-up – Jo Wills, BE and Claudio Franceschi, IT - 30 min )</li><li>• Concluding remarks by the KBBE Forum representatives</li></ul> <p><i>Discussion, Q&amp;A</i></p>
15.30	<b>End of the workshop</b>