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***Podcast produced and available on the project website***  
***[www.NU-AGE.eu](http://www.NU-AGE.eu)***

**Project acronym:** NU-AGE  
**Project full title:** New dietary strategies addressing the specific needs of elderly population for an healthy ageing in Europe  
**Grant agreement no:** KBBE-266486  
**Project web site:** [www.nu-age.eu](http://www.nu-age.eu)

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<b>Nature:</b> R	<b>Dissemination level:</b> PU
R = Report P = Prototype D = Demonstrator O = Other	PU = Public PP = Restricted to other programme participants (including the Commission Services) RE = Restricted to a group specified by the consortium (including the Commission Services) CO = Confidential, only for members of the consortium (including the Commission Services)

## Table of contents

1	Podcast produced and available on the project website .....	3
1.1	Why a Podcast? .....	3
1.2	Where produced? .....	3
1.3	Where is the podcast available? .....	3
2	Podcast Transcript: Interview with Claudio Franceschi and Aurelia Santoro .....	4

## 1 Podcast produced and available on the project website

### 1.1 Why a Podcast?

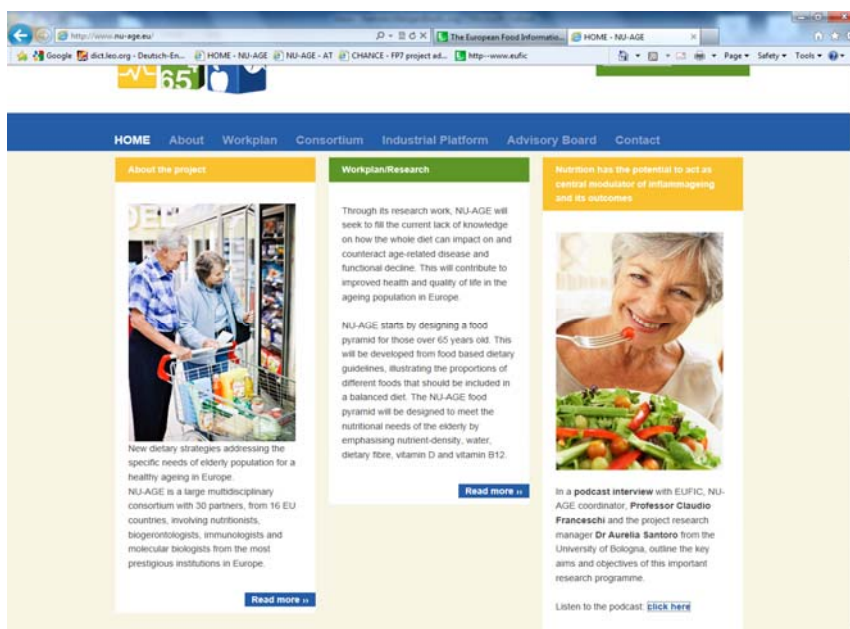
A podcast is a type of digital media consisting of an episodic series of files (either audio or video) subscribed to and downloaded through web syndication or streamed online to a computer or mobile device. The word is a neologism derived from "broadcast" and "pod" from the success of the iPod, as podcasts are often listened to on portable media players.

### 1.2 Where produced?

The interview was conducted at the 1<sup>st</sup> annual meeting, March 2012, in Clermont Ferrand. Nathalie Metzger from Eufic interviewed the project coordinator Prof. Claudio Franceschi and the project research manager Dr. Aurelia Santoro.

### 1.3 Where is the podcast available?

The podcast can be downloaded and listen at [www.NU-AGE.eu](http://www.NU-AGE.eu)



The screenshot shows the NU-AGE website homepage. At the top, there is a navigation menu with links: HOME, About, Workplan, Consortium, Industrial Platform, Advisory Board, and Contact. Below the menu, there are three main content columns:

- About the project:** Features a photo of two elderly women in a grocery store. Text: "New dietary strategies addressing the specific needs of elderly population for a healthy ageing in Europe. NU-AGE is a large multidisciplinary consortium with 30 partners, from 16 EU countries, involving nutritionists, biogerontologists, immunologists and molecular biologists from the most prestigious institutions in Europe." A "Read more" button is at the bottom.
- Workplan/Research:** Text: "Through its research work, NU-AGE will seek to fill the current lack of knowledge on how the whole diet can impact on and counteract age-related disease and functional decline. This will contribute to improved health and quality of life in the ageing population in Europe." Below this, it says: "NU-AGE starts by designing a food pyramid for those over 65 years old. This will be developed from food based dietary guidelines, illustrating the proportions of different foods that should be included in a balanced diet. The NU-AGE food pyramid will be designed to meet the nutritional needs of the elderly by emphasising nutrient-density, water, dietary fibre, vitamin D and vitamin B12." A "Read more" button is at the bottom.
- Nutrition has the potential to act as central modulator of inflammaging and its outcomes:** Features a photo of a smiling elderly woman eating a salad. Text: "In a podcast interview with EUFIC, NU-AGE coordinator, **Professor Claudio Franceschi** and the project research manager **Dr Aurelia Santoro** from the University of Bologna, outline the key aims and objectives of this important research programme." A "Listen to the podcast: [click here](#)" link is at the bottom.

## 2 Podcast Transcript: Interview with Claudio Franceschi and Aurelia Santoro

00:10 Interviewer *Thank you very much for being here for this Podcast.*

00:12 CF It's a pleasure.

*Interviewer We have Claudio Franceschi here and Aurelia Santoro. Claudio Franceschi is the coordinator of the project we talk about and Aurelia Santoro the Scientific Manager of the project. The project we talk about is called "NU-AGE". Professor Franceschi, what's it about? What is NU-AGE?*

This podcast will provide insight into The European Commission-funded project NU-AGE. NU-AGE is exploring how diet can help European seniors to live a healthier, longer life. On the 8-9<sup>th</sup> March, the large multidisciplinary consortium met in France for the annual NU-AGE conference. In this podcast recorded at the meeting, Prof. Claudio Franceschi, the coordinator of the NU-AGE project and Dr. Aurelia Santoro, the Scientific Manager of NU-AGE were interviewed.

Professor Franceschi gives us a glimpse into the NU-AGE project and highlights the importance of targeting the elderly in order to promote healthy ageing:

Well Nu-age is a project targeted for the best diet for the elderly and, as you know, in Europe and in the entire planet the number of elderly people is increasing enormously and the people over sixty-five are increasing at a high rate and there is a need to target these people. What is important is to put together strategies to have a healthy ageing.

*Could you define what healthy ageing entails? How can individuals age healthily?*

Well this is a good question. Anyone has his own secret strategy, but science has identified the two main strategies. One is a proper diet and nutrition and the other one is exercise. They are both related. This project is mainly related to diet and nutrition.

*A novel scientific term 'inflammageing' has been coined by Prof. Claudio Franceschi, and is gaining increasing recognition. Could you shed some light on the origins of this word and explain its meaning? I was reading about the project and the word inflammaging I have found; is it in the dictionary? Because you invented it, it is an official word and it is used as well now in magazines so what is it about this "inflammageing"?*

Well first of all I am very pleased that something – the word – the new word that I created is so popular and it will become even more popular. Inflammageing is a mixture of inflammation and ageing and should deliver the message that during physiological ageing there is an increase of inflammation. Inflammation means that our body, which is exposed to a variety of damaging agents, of microbes, viruses and other agents from outside and from inside – for example with regard to microbes, microflora, react to all these damages which accumulate with age and in order to react to this stimuli it increases one of the basic mechanisms, physiological mechanisms we have for survival, crucial for survival, which is inflammation. But when this inflammation becomes too much because we live so long nowadays, it reaches a threshold where it can turn detrimental.



And what is extremely important for the general public to understand is that the major age-related diseases like diabetes type 2, like dementia, alzheimers, like cardio-vascular diseases, like diabetes – which I just said , like psychothemia – so the loss of muscle and muscle function, depression, all these pathologies which are apparently quite different from each other, all share an inflammatory pathogenesis which means that inflammation is the driving force of this pathology as a whole. So if we would like, would be able, to stop or to decrease the rate of this inflammation which increases with age, we could protect our body from a variety of diseases altogether.

And does nutrition play a significant role in the inflammaging process? And you believe that nutrition is a very important factor in this?

Yes, this is what we're betting on but there is a lot of circumstantial evidence suggesting that nutrition can have a persuasive role; the right nutrition can have an important role in decreasing inflammation. And there is a lot of data suggesting that, for example, excess of nutrition like obesity, for example, creates an inflammatory status, so nutrition is crucial for inflammaging. And the rationale of the NU-AGE project, this European project, is to identify a proper diet which is a Mediterranean diet properly modified, ad-hoc modified, for the elderly in order to decrease the inflammaging and so decrease the risk of all the pathologies that I was mentioning.

So we are all responsible for our own ageing process, and we have the power to influence it significantly. Could you comment on this? Ok, that's very interesting that we know that we have something we can do to have influence in this process.

Yes, we can decrease the rate of ageing with nutrition, so this is the concept. And in particular we will recruit 1,250 people in five European centres – in Italy, The Netherlands, Poland, UK and France – and half of them will follow a Mediterranean diet fortified with some nutrients like Vitamin D and so on. The Mediterranean diet means Olive Oils with a lot of fruit, vegetables, some pasta and so on, so the right amount and the right amount of protein, lipids, carbohydrates and so on. They will follow this diet for one year. And before and after, we will study many parameters related to nutrition, immunological status, inflammation and some others – the composition of the gut microflora and some other genetic and epigenetic studies which all focussed on nutrition and inflammation and the healthy status.

Dr. Santoro, the Scientific Manager of the NU-AGE project, will now outline the research activities of the project. Is UNIBO responsible for coordinating one of the recruitment centres?

Interviewer Thank you very much for this explanation. Now, Aurelia, from you, I would really like to know a bit more about the research, because you are the Research Scientific Manager, and you're located in Bologna and you have a Centre there. Could you tell us a bit more about what you are doing there in the Centre.

Yes, we are one of the five recruiting centres of this project. As Prof. Franceschi mentioned before, we are recruiting elderly people from seventy- five to...

07:33 CF No, sixty-five.



...from sixty-five to seventy-nine years old in five European countries. And we will perform several measures on these people from anti-prodmetic measures to several measures for the health status for these people because we have to get particular attention to some parameters like their frailty. Frailty means that often people getting older arrive to....get all their ...in a bad way.... we addressed with the other ones, so we...in this project we tried to get people that are non-frail – so in good status of health – and we have to include the people which have some parameters which define them as pre-frail. So in order to evaluate if the one year intervention diet could really influence on these parameters and make them more healthier than before the diet. And we measure in all these people we also measure several cognitive parameters, and then we will collect several biological samples like blood, faeces and urine in order to have really in-depth analysis from a molecular biological analysis, genetic and anti-genetic analysis and some biochemical analysis in their blood and an in-depth analysis of their gut macrobiotic status of these people in order to have a large set of parameters to evaluate before and after the dietary intervention.

Yes, I can comment that we are very inclusive, so we would like to have volunteers which represent the general population. So if some people between sixty-five and seventy-nine are taking some drugs and so on, this doesn't matter because this is very common especially for hypotension and so on, but we do not exclude them. We will exclude only people who are in really bad shape, who have cancer or other major diseases which they need not just a Mediterranean diet but a specific diet that only MD's can prescribe. So apart from these cases, we will be very inclusive because we would like to involve people of the general representative of the general population. So we will not...we predicted that very, very few people will be excluded. And the other point I would like to comment on what Aurelia said that we are in this project with some of the best team in Europe for nutrition and for assessing the nutritional status and inflammation and the immune system and we are using the most up to date technologies like, for example, metabolomics, which means that in the urine we can discover with the nuclear magnetic resonance all the product of the metabolism and particularly those related to inflammation and identifying new biomarkers. So this project is really at the cutting-edge of science and it tries to answer to a major question about what Europe is very concerned, so the health status of the elderly. And so we would also combine not only science but also we have onboard some more industries and large industries related to food because another major aim of the project is not only to test that a proper diet can influence and can improve the health status, but also to provide data that can be used by industries to set up new a prototype functional food specifically targeted for the elderly. Last, but not least, Aurelia mentioned that we are measuring in this the volunteers who will enter the study many cognitive parameters. And we hope, a major hope of the target and goal of this project is that we would like to demonstrate, to show, with robust scientific data, that a proper diet can improve the cognitive ability because the brain functioning is of major importance for the elderly, and for everybody, but particularly for the elderly. So we hope that our diet will be very good also not only for the entire body but also for the brain.

And when can we expect such kind of results? Will they be published during the course of the project or at the end of the five-year project? It will be during this project or do we have to wait until this five year project will be finished?

Good question. The answer...the question as you...I tried to illustrate, are quite challenging. And since we have to recruit more than 1,000 people and we have to do one year, each one has to follow one year of diet, and before and after we collect this material which has to be analysed. It takes time.

[Interviewer Maybe by the end of the last year of the project?](#)

Well the first results will come out within two or three years, but we will have some preliminary data regarding their status and so on. And another very interesting point will be we will interview also the people who will be volunteers also regarding what they think about the food for the elderly; if they are satisfied with what the market offers, if it is too expensive, what are their precise requests which they think this project can help, and transfer this question to the food industries in order to be also effective for something related to the real life of the people.

[Interviewer Thank you very much. I won't wait so long to come back to you to ask again for some research results. Thank you very much.](#)

15:25 CF & AS Thank you.

That brings us to an end of the podcast recorded at the NU-AGE annual conference. We hope that this podcast has provided you with an opportunity to discover more about the NU-AGE project. Hopefully it should not be too long until we can release some of the preliminary results, so make sure that you follow the project.