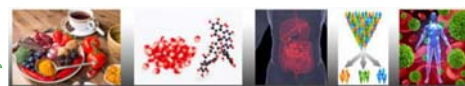




POSITIVE NEWSLETTER



EUROPEAN COOPERATION IN THE FIELD OF SCIENTIFIC AND TECHNICAL RESEARCH



ISSUE VIII, DECEMBER 2018

FAREWELL MESSAGE

D

ear friends & colleagues,

It is with some sadness that we are hereby releasing our very last **POSITIVE newsletter**. If we look at the full collection of issues we can clearly see that all together we have done a fantastic amount of work, we have attended great meetings in beautiful countries, we have met many new colleagues and future work partners, we have started new wonderful collaborations, we have discussed and learnt lots of new subjects and concepts and we have produced an important quantity of very informative articles which are of great value to the scientific community working in **Bioactive Compounds & Health** and are also essential for the future development of this research area.

Once more, we also want to thank you all for your patience with us and for your extremely valuable help to build up the information and photos included in these journals. We hope that you have enjoyed reading them as much as we have enjoyed putting them together.

We sincerely hope that you will all look back every now and then to these newsletters and remember good times and moments with all the partners. We certainly will do!

Hope to see you soon Friends!

The FG



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NEWS FROM THE ACTION

POSITIVE 8th WGs Meeting, 24th September 2018, Lisbon, PORTUGAL



The last WG and MC meetings of the COST Action POSITIVE took place in Lisbon on the afternoon of Monday, the 21st of September, in the rooms of the Vip Executive Art's Hotel.

One more time, the partners gathered first in separate rooms for the final WG1 and WG2 meetings where there was, as usual, an update of the activities done in each group, followed by some presentations on the progress of the on-going meta-analysis and review articles that will be completed and published in the next few months.

In a second part of the meetings a general question was posed to the attendants: 'What had been the main findings and outcomes of the Action? The participants formed different subgroups and

dedicated some time to respond to this question and to communicate their views and opinions about the main results attained during the course of the Action. This was followed by some general and lively discussions. After this, all the responses were shared and a general consensus was summarized by the WG leaders. Overall, there was a clear common message, we need to continue the research promoting and developing improved clinical studies that will allow for confirmation of the influence of all the investigated factors in human interindividual variability in response to food bioactive compounds in relation with the development of cardiometabolic disorders. We all agreed on that the COST Action has identified the scientific gaps that need to be sorted and has outlined the direction to follow in the future research in this area.



NEWS FROM THE ACTION

SOCIAL EVENTS

We really want to thank our Portuguese partners for giving us, once more within this COST Action, the opportunity to share a great time and social evening with all our 'POSITIVE friends'.

After a nice stroll in the surroundings of the Hotel area and by the Tagus river bank under a beautiful full moon (all very well prepared by our colleagues Claudia, Paula and the rest of the Portuguese team) we end-up having dinner in a Portuguese typical restaurant where we enjoyed the delicious traditional cod fishes and rice in a pleasant and relaxing atmosphere.



NEWS FROM THE ACTION
**FINAL SCIENTIFIC COST POSITIVE Conference,
 25 - 26th September, Lisbon, Portugal**
Day 1: Main findings from POSITIVE: Major determinants involved in interindividual variations in plant food bioactives ADME and cardiometabolic responses

As in previous occasions, the Final Scientific Conference of the COST Action POSITIVE –FA1403 was held in satellite with an international conference, the 2nd Food Bioactives and Health conference, FBHC-2018, of which a summary follows.

The conference was divided in two main sessions. The first one took place on Tuesday the 25th of September and included presentations by some of the WG leaders as well as other partners covering the main findings and results from the research areas of their respective working groups. Following an introduction by the Action chair, Dr. Christine Morand, the speakers talked about diverse aspects of the research in relation with interindividual variability in plant food bioactives absorption and metabolism as well as cardiometabolic responses. The program included talks about general issues of the bioactives ADME, specific insights into the metabolism of carotenes and flavonoids, the application of metabolomics, the impact of gut microbiota, the main lessons learned from the meta-analysis approach or the quality of the reporting in clinical trials.



The presentations were followed by a round table looking at the **'Future of plant food bioactives in precision nutrition'**. The discussions with all the speakers were led by Dr. Baukje de Roos.



NEWS FROM THE ACTION

Day 2: Recent advances in research on interindividual variability and interesting perspectives in the field of personalized nutrition

During the second day of the Conference, we had the opportunity to listen to a number of invited speakers, both from the COST Action and external speakers, who are specialised in the area of 'Personalized Nutrition'.

The morning session included several talks looking at the findings of the Food 4Me project, the future approaches for personalized intervention trials or the experience in the context of personalized medicine. The afternoon session was entirely devoted to the area of **consumers** and **stakeholders**. The invited speakers presented the views of consumers as well as of the food industry and market. There were talks about consumer's healthy choices and factors influencing these choices, the interest and problems faced by the natural plant products industry in relation with personalized nutrition, the particular views of the Spanish Federation of Food and Drink Industry, or the application of new technologies to personalized nutrition and food and drink choices.



The presentations were also followed by a round table: **'Debate on personalized nutrition and health with a panel of stakeholders'** led by Dr. María-Teresa García-Conesa and where the speakers debated about the future of personalized nutrition with all the attendants.

NEWS FROM THE ACTION
2nd FOOD BIOACTIVES & HEALTH CONFERENCE
26 - 28 September 2018, Lisbon, Portugal


The conference also offered the opportunity to exchange ideas and knowledge with many scientists of the different areas during the breaks in the common room as well as along the posters exhibition.



The 2nd FBHC-2018 was successfully held in Lisbon on the 26-28th of September right after the Final COST Conference and thus, many POSITIVE partners were able to attend the FBHC and also to present their work in the different topics addressed, i.e. the latest trends in the field of **polyphenols, carotenoids, glucosinolates, marine compounds, polysaccharides, peptides and proteins**, all under the frame of **'food bioactives to improve or maintain our health'**. The opening ceremony was led by Dr. Claudia Nunes Dos Santos and Dr. Rosario Bronze and was followed by the different parallel sessions which included among others subjects: the role of bioactives in neuronal and immune diseases, the mechanisms of action of bioactives and derived metabolites, flash presentations by young researchers, novel applications or dietary interventions.


 2ND CONFERENCE ON

FOOD BIOACTIVES & HEALTH


26-28 SEPTEMBER 2018 LISBON PT



NEWS FROM THE ACTION

POSITIVE partners in Lisbon at the FBHC-2018



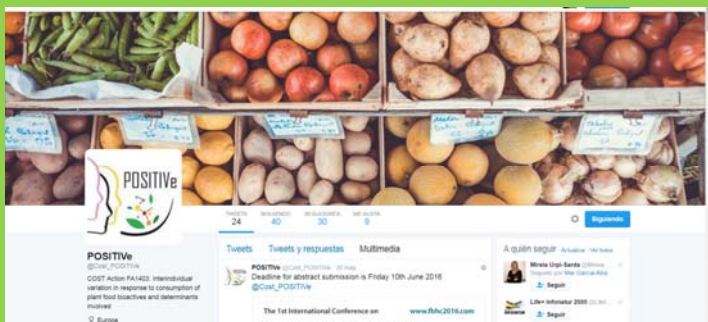
Once again, our kind hosts organized a wonderful conference dinner in a cruiser by the river Tagus from where we were able to admire the coast side of Lisbon at night while having a few drinks on the top deck. We then went to the main dining room of the boat to enjoy a fantastic dinner while listening to some pleasant music.



Overall, it was a great meeting and experience for all. Well done to the Portuguese team who organized everything. Thanks Claudia, Paula, Regina and the rest of the people. We look forward to going back to the beautiful Lisbon.



POSITIVE on TWITTER



#Cost_POSITIVE

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www.twitter.com

RESEARCH DISSEMINATION

OUR MAIN POSITIVE COLLABORATIVE PUBLICATIONS



Mol. Nutr. Food Res. 2016, 00, 1–16

DOI 10.1002/mnfr.201600557

1

REVIEW

Addressing the inter-individual variation in response to consumption of plant food bioactives: Towards a better understanding of their role in healthy aging and cardiometabolic risk reduction

Claudine Manach^{1*}, Dragan Milenkovic^{1*}, Tom Van de Wiele², Ana Rodriguez-Mateos³, Baukje de Roos⁴, Maria Teresa Garcia-Conesa⁵, Rikard Landberg^{6,7}, Eileen R. Gibney⁸, Marina Heinonen⁹, Francisco Tomás-Barberán⁵ and Christine Morand¹



Christine Morand

Mol. Nutr. Food Res. 00, 0, 2017, 1600685

DOI 10.1002/mnfr.201600685

(1 of 37) 1600685

REVIEW

Host-related factors explaining interindividual variability of carotenoid bioavailability and tissue concentrations in humans

Torsten Bohn¹, Charles Desmarchelier², Lars O. Dragsted³, Charlotte S. Nielsen³, Wilhelm Stahl⁴, Ralph Rühl^{5,6}, Jaap Keijer⁷ and Patrick Borel²



Patrick Borel

**Comprehensive
REVIEWS**
in Food Science and Food Safety

Bioavailability of Quercetin in Humans with a Focus on Interindividual Variation

A. Filipa Almeida , Grethe Iren A. Borge, Mariusz Piskula , Adriana Tudose, Liliana Tudoreanu, Kateřina Valentová , Gary Williamson, and Cláudia N. Santos 












Cláudia N Santos

 **metabolites**



Article

Interlaboratory Coverage Test on Plant Food Bioactive Compounds and Their Metabolites by Mass Spectrometry-Based Untargeted Metabolomics

Ville Mikael Koistinen ^{1,*} , Andreia Bento da Silva ², László Abrankó ³, Dorrain Low ⁴ , Rocio Garcia Villalba ⁵, Francisco Tomás Barberán ⁵ , Rikard Landberg ⁶, Otto Savolainen ⁶, Inmaculada Alvarez-Acero ⁷ , Sonia de Pascual-Teresa ⁷, Christof Van Poucke ⁸ , Conceição Almeida ², Lucie Petrásková ⁹, Kateřina Valentová ⁹ , Stephanie Durand ⁴, Wiesław Wiczkowski ¹⁰ , Dorota Szawara-Nowak ¹⁰, Raúl González-Domínguez ^{11,12} , Rafael Llorach ^{11,12}, Cristina Andrés-Lacueva ^{11,12}, Anna-Marja Aura ¹³, Tuulikki Seppänen-Laakso ¹³, Kati Hanhineva ¹, Claudine Manach ⁴ and Maria Rosário Bronze ^{2,14,15} 



Rosário Bronze

RESEARCH DISSEMINATION

OUR MAIN POSITIVE COLLABORATIVE PUBLICATIONS

ASN REVIEW

Review Journal

Interindividual Variability in Biomarkers of Cardiometabolic Health after Consumption of Major Plant-Food Bioactive Compounds and the Determinants Involved

Dragan Milenkovic,¹ Christine Morand,¹ Aedin Cassidy,² Aleksandra Konic-Ristic,³ Francisco Tomás-Barberán,⁴ José M Ordovas,^{5,6} Paul Kroon,⁷ Raffaele De Caterina,⁸ and Ana Rodríguez-Mateos⁹

WG2



Ana Rodríguez-Mateos

nutrients MDPI

Review

Impact of Flavonols on Cardiometabolic Biomarkers: A Meta-Analysis of Randomized Controlled Human Trials to Explore the Role of Inter-Individual Variability

Regina Menezes ¹, Ana Rodríguez-Mateos ², Antonia Kaltsatou ³, Antonio González-Sarriás ⁴, Arno Greyling ⁵, Christoforos Giannaki ⁶, Cristina Andres-Lacueva ⁷, Dragan Milenkovic ⁸, Eileen R. Gibney ⁹, Julie Dumont ¹⁰, Manuel Schär ¹¹, Mar Garcia-Aloy ⁷, Susana Alejandra Palma-Duran ¹², Tatjana Ruskovska ¹³, Viktorija Maksimova ¹³, Emilie Combet ¹² and Paula Pinto ^{1,14,*}



Paula Pinto

nutrients MDPI

Review

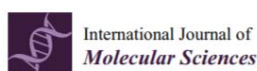
A Systematic Review and Meta-Analysis of the Effects of Flavanol-Containing Tea, Cocoa and Apple Products on Body Composition and Blood Lipids: Exploring the Factors Responsible for Variability in Their Efficacy

Antonio González-Sarriás ^{1,*}, Emilie Combet ², Paula Pinto ³, Pedro Mena ⁴, Margherita Dall'Asta ⁴, Mar Garcia-Aloy ^{5,6}, Ana Rodríguez-Mateos ⁷, Eileen R. Gibney ⁸, Julie Dumont ⁹, Marika Massaro ¹⁰, Julio Sánchez-Meca ¹¹, Christine Morand ¹² and María-Teresa García-Conesa ^{1,*}

María-Teresa
García-Conesa

RESEARCH DISSEMINATION

OUR MAIN POSITIVE COLLABORATIVE PUBLICATIONS



Review

Meta-Analysis of the Effects of Foods and Derived Products Containing Ellagitannins and Anthocyanins on Cardiometabolic Biomarkers: Analysis of Factors Influencing Variability of the Individual Responses

María-Teresa García-Conesa ^{1,*}, Karen Chambers ², Emilie Combet ³, Paula Pinto ^{4,5}, Mar Garcia-Aloy ^{6,7}, Cristina Andrés-Lacueva ^{6,7}, Sonia de Pascual-Teresa ⁸, Pedro Mena ⁹, Aleksandra Konic Ristic ^{10,11}, Wendy J. Hollands ², Paul A. Kroon ², Ana Rodríguez-Mateos ¹², Geoffrey Istaş ¹², Christos A. Kontogiorgis ¹³, Dilip K. Rai ¹⁴, Eileen R. Gibney ¹⁵, Christine Morand ¹⁶, Juan Carlos Espín ¹ and Antonio González-Sarrías ^{1,*}



Antonio González Sarrías

TTG

JOURNAL OF
AGRICULTURAL AND
FOOD CHEMISTRY

Perspective

Cite This: *J. Agric. Food Chem.* XXXX, XXX, XXX–XXX

pubs.acs.org/JAFC

Breakthroughs in the Health Effects of Plant Food Bioactives: A Perspective on Microbiomics, Nutri(epi)genomics, and Metabolomics

Banu Bayram,[†] Antonio González-Sarrías,[‡] Geoffrey Istaş,[§] Mar Garcia-Aloy,^{||,○} Christine Morand,[⊥] Kieran Tuohv,[#] Rocío García-Villalba,^{*,&‡} and Pedro Mena^{*,∇,○}



Pedro Mena

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<https://www.facebook.com/costpositive/>

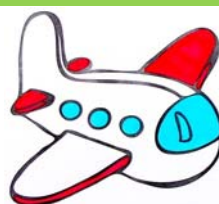
RESEARCH DISSEMINATION

POSITIVE SPREADING ALL OVER THE WORLD

19th World Congress of Food Science & Technology (IUFOST),

October 23-27, 2018, Mumbai, India

Once more and, before the end of our COST Action, POSITIVE has spread the main messages and lessons learnt about Interindividual Variability & Food Bioactives and Health to the scientific community. The job was in the hands and voice of our Chair, Dr. Christine Morand, who travelled all the way to Mombay to present POSITIVE at one of the largest Food Science & Technology Conferences, IUFOST-2018. The meeting also counted with the presence and active participation of Prof. Mariusz Piskula, General Director of the Institute of Animal Reproduction and Food Research, Polish Academy of Sciences, Olsztyn (Poland) and a partner of POSITIVE.



PARTNERS' VIEWS & OPINIONS

POSITIVE EXPERIENCE

We asked all the POSITIVE partners about their views and opinions regarding their experience during the course of the four-years Action. These were some of our questions and some of their responses ...

Main lessons from POSITIVE

What are the new issues you acquired during the Action which you have incorporated/will incorporate into your future research?

Individual variation is one of the key issues which need to be tackled one way or another. The division between responders and non-responders and studies related to factors causing the response or its absence seems to me a reasonable way to continue. Easy, it is not, but feasible and reasonable....!

Some of the topics I didn't know so much before joining the COST POSITIVE: knowledge about other bioactives such as carotenoids; how to conduct meta-analysis of cardiometabolic effects; EU or other initiatives on bioactives that some colleagues are working on; status of research regarding inter-individual variability (...) upon bioactives consumption.

For a successful scientific work, an interdisciplinary and regular exchange between specialists is indispensable. Digitalisation is more and more important to deal with the vast quantity of data !!!

(...) applying bioinformatic tools to identify genes, transcription factors and pathways targeted by plant food bioactives in relation with cardiometabolic disorders, have significantly enhanced my skills (...) a better understand of anthocyanin bioavailability, which gave me new insight in interindividual responses of plant food bioactives on human health.

I think the omics approach of some of the groups and the training schools and webinar have been really useful for us, giving us direct access to real data and examples that are already being used in our lab. Also, the participation in the meta-analysis work has been very productive, not only for the publications, but also for the acquisition of new knowledge in the methodology used.

Improved networking, additional publications, further knowledge on metabolism of bioactive' phytochemicals.



PARTNERS' VIEWS & OPINIONS

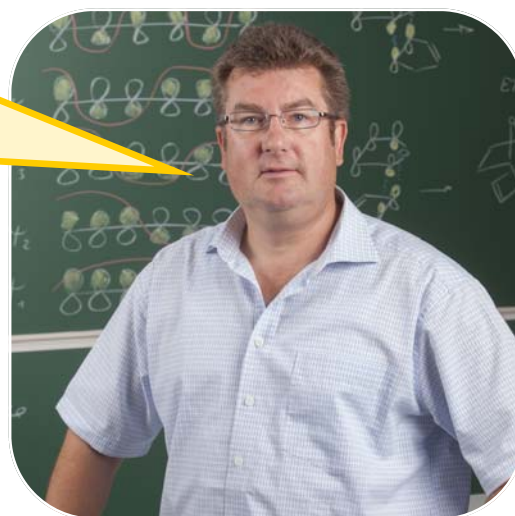
Networking at POSITIVE

How did you find the opportunity to interact and work with new colleagues from other countries and research institutions?



I only knew some of the colleagues before, some I knew from publications, but the majority I didn't know. So, the COST was a good opportunity to get to know them. With some people I am sure I will continue to have contact with. It would be great to continue the action, although I am not sure how that will be possible from a practical perspective. Maybe to associate the POSITIVE network meetings after or before relevant scientific meetings, so that people can meet more easily and avoid additional travelling costs...

It was inspiring to meet old friends and new researchers and to exchange results and opinions. There are always possibilities to launch new projects, especially between peripheral European countries and Switzerland. The contacts made during the action will intensify these collaborations. Networking will continue through the participation at international meetings....!!!



Very good exchange within WG, perhaps across WG more interaction time could have been allowed for, and, perhaps, further time for poster presentations. Overall however great possibility to broaden network....!!!



PARTNERS' VIEWS & OPINIONS

Have you developed any fruitful collaboration that you will continue in the near future?

I have developed fruitful collaboration with prof. Ruskovska, my supervisor and mentor who has also become my sincere friend and taught me during STSM and give me much clear understanding of the requirements to perform a extraction of nutrigenomics data from the literature for further bioinformatics analysis. This was beneficial for my research and future work and this collaboration will be continue in the near future.



Would you like to maintain your involvement in the POSITIVE network after the end of the Action?

I would greatly appreciate efforts of particular participants who will have initiative to continue our work after the end of Action. Also, I express my willingness to be involved in the POSITIVE network in the near future.

If activities are continued, I would be very interested to stay involved, perhaps, at a somewhat lower frequency of meetings (1/year?).

Yes, of course!!



PARTNERS' VIEWS & OPINIONS

Social life at POSITIVE

Did you enjoy the meetings and associated social events?

The social events are as important as the scientific meetings. I was very pleased about the side activities during the COST



Yes quite a lot! Great organization in all the meetings I attended.

Very nice meetings, though perhaps time for social interaction could be enhanced (i.e. more time set aside) to allow for further networking !!!



PARTNERS' VIEWS & OPINIONS



Meetings were well-organized and entertaining at best. I specially wish to thank the partners who amply used their time and effort to guide or organize the guided tours to show us around the historic sites of the meeting venue cities.

... I will keep you all in my heart !

I enjoyed attending the meetings in Belgrade and Olsztyn very much. For me it was opportunity to meet colleagues of POSITIVE for the first time, to enjoy the city's sightseeing and local food at national restaurants which had been organized by the local POSITIVE partners as a very good hosts.



The social events were always quite nice given the great efforts of the local organisers (although I not always stayed to attend them due to travelling schedules)...



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POSITIVE New Generation !!!!

Our POSITIVE Action has certainly proven to be very productive not only from a scientific point of view but also providing a handful of beautiful babies and ...

...Who knows??? This may be the next generation of POSITIVE scientists ...

What is evident (or not???) is the **high inter-individual variability** among all of them !!!! Here is a good sample.

Congrats to all !!!!



ALEXIA-CHRISTINA KALTSATOU,
BORN JANUARY 28, 2017
DAUGHTER OF ANTONIA KALTSATOU



LUCIA RODRIGUEZ HEISS,
BORN OCTOBER 1, 2014
DAUGHTER OF ANA & CHRISTIAN

POSITIVE New Generation !!!!



**DEFNE BESTEPE, BORN MAY 23, 2017
DAUGHTER OF SENEM KAMILOGLU**



**MADALENA BRONZE, BORN JULY 8, 2017
GRANDDAUGHTER OF MARIA ROSÁRIO BRONZE**

POSITIVE NEWSLETTER

ISSUE VIII, DECEMBER 2018

POSITIVE New Generation !!!!



LUCAS GONZÁLEZ, BORN APRIL 4, 2017
SON OF ANTONIO GONZÁLEZ SARRÍAS



My mum is a scientist



MARTÍN PÉREZ, BORN AUGUST 11, 2016
SON OF ROCÍO GARCÍA VILLALBA



POSITIVE Network - Achievements

- **8 WG meetings** (Belgrade / Murcia / Norwich / Bucarest /
/ Olsztyn / Thessalonique / Dubrovnik / Lisbon)
- **4 Scientific Workshops and Conference** (Tours /
Norwich / Thessaloniki / Lisbon)
- **2 Training Schools** (Barcelona / Thessaloniki)



POSITIVE Network - Achievements

➤ **35 Short-Term Scientific Missions**

➤ **6 ITC Conference grants**

➤ **10 collaborative reviews published**  15 additional in preparation

➤ **8 Newsletters**

➤ **Website** <http://www6.inra.fr/cost-positive>



COST is supported by the
EU Framework Programme
Horizon 2020.

Organisation

Working Groups

Events



CONTACT US



EUROPEAN COOPERATION IN THE FIELD OF
SCIENTIFIC AND TECHNICAL RESEARCH

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Co-Chair: Prof. Francisco TOMAS-BARBERAN, CEBAS-CSIC, Spain,
e-mail: fatomas@cebas.csic.es

CHAIR'S CORNER

Dear POSITIVE partners,
Dear Friends,

This time it's the end, the Action has officially ended on December 9th. We hope you have enjoyed being involved as much as we did! In any case, from our side, it was a great pleasure to coordinate the COST POSITIVE network during the last four years. All together we have performed a great job and put forward at the international level the scientific importance and the impact of increasing our understanding of why some individuals respond to plant food bioactives consumption, while others do not. We must recognize that despite the huge and constant dedication of the POSITIVE partners, we have not yet provided a clear response. Indeed, this topic is a difficult concept, probably much more than we initially thought, that cannot be fully addressed based only on a systematic analysis of existing published studies, which were never designed to respond to this question.



However, the extensive networking activities within POSITIVE have provided some key insights and identified the gaps in knowledge and the needs for future research. And now, with the help of the Steering Committee, we will do our best to promote the POSITIVE findings towards policy makers and funding bodies, to help in getting research calls/funding to carry out concrete research on this relevant and exciting topic. Some papers are still under finalization, and we expect their publication in 2019, thanks to the maintenance of the collaborative dynamics within the POSITIVE sub-groups! Of course, The POSITIVE website will continue to be fed with the new outcomes as well as with any information of relevance for the POSITIVE community.

So we keep in touch !!!

With our best wishes for Christmas and New Year !!!

**THANK YOU ALL &
HAPPY 2019**

