



**NuGO Association
2015 Annual Report**

NuGO is an Association of universities, research institutes and SMEs focusing on the development of molecular nutrition, personalised nutrition, nutrigenomics and nutritional systems biology.

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» 01 MANAGEMENT

» 01.1 Message from the directors

2015 was a busy year for NuGO with the re-launch of the website and a more frequent newsletter, and delivery of three NuGO-supported PhD training courses. We also had a very successful NuGOweek 2015 in Barcelona (ES).

In 2014, we asked the NuGO community for their opinions about the importance of different NuGO activities. This survey showed the community valued NuGO highly, as a mechanism for building international contacts, networking and early-career exchange opportunities. Training of early-career researchers remains high on the agenda, and we plan to deliver four PhD training courses during 2016 and have created Early-Career Network Group (ECNG). Membership of ECNG is being agreed, and we are planning ECNG events at NuGOweek 2016. In 2015, we also launched the NuGO Exchange Programme, which aims to facilitate further collaboration amongst NuGO Member organisations.

The NuGO International Task Force has been set up to consider how we can extend our international activities, and build up international dialogue. For example, our main outputs, NuGOweek, training courses, and access to databases and tools and bioinformatics infrastructure, could be delivered globally. We are also thinking about how we could link up with other international nutrigenomics organisations, such as the Asia Pacific Nutrigenomics and Nutrigenetics Organisation (APNNO - www.apnno.com) and the International Society of Nutrigenetics/ Nutrigenomics (ISNN - www.nutritionandgenetics.org). We hosted two ISNN speakers at NuGOweek 2015 in Barcelona (ES), and Baukje de Roos and Lorraine Brennan will contribute to a Joint NuGO-ISNN Young Investigators Master Class on Molecular Nutrition and Nutrigenomics at the ISNN meeting in Tel Aviv (IL) during 2016.

We are delighted to announce our first member from Australia, and welcome the team from Monash University (www.monash.edu).

During 2015, we spoke to and/or visited several groups interested in joining NuGO, and we will continue to expand the Membership and make NuGO more international.

» 01.2 NuGO Executive Committee

There were no changes to the Executive Committee during 2015:

- Lars Dragsted (Chair), University of Copenhagen (DK)
- Cristina Andres-Lacueva, University of Barcelona (ES)
- Dirk Haller, Technical University of Munich (TUM, DE)
- Diana Ivanova, Medical University of Varna (BG)
- Jim Kaput, Nestle Institute of Health Sciences (CH)
- Marjukka Kolehmainen, University of Eastern Finland (FI)
- Giuditta Perozzi, Research Centre for Food and Nutrition (CREA, IT)

The committee met during NuGOweek 2015, and had a teleconference in February and September, respectively. Important issues that were discussed included implementation of the course and exchange programmes in 2015 and beyond, and the future use of software licences.



*Dr Lorraine Brennan
(University College Dublin, IE)*



*Dr Baukje de Roos
(University of Aberdeen, UK)*

› 01.3 NuGO Participants' Assembly

The eighth Participants' Assembly (PA) was held on Monday 7th September in Barcelona (ES). Nineteen people, representing 17 member organisations, attended the meeting. Issues for discussion included how to approach potential new member organisations, establishing the International Task Force and the Early-Career Network Group, and software licenses.

2014 ended with a surplus (positive balance) allowing the association to maintain the existing cost for full membership fees at €2 500 with a reduced fee for new members during the first year.

›› 02 EVENTS

12th NuGOweek
MECHANISMS OF A LONG-LIFE HEALTH
 7-9th September, 2015
 University of Barcelona - Faculty of Biology
 Barcelona, Spain

Deadline abstract submission: 22nd June 2015
www.nugo.org

Opening session
 Prof. Cristina Andres-Lacueva, Prof. José Ordovas

Inflammation, immunology, and gut health
 Prof. M. Müller, Dr. Alan Walker

NuGO-ISNN session: The role of genetics in the delivery of personalised nutrition
 Prof. John Mathers, Dr. Jildau Bouwman, Prof. Martin Kohlmeier, Prof. Alfredo Martinez

Effective interventions, personalised diets and sustainable choices
 Prof. Alice H. Lichtenstein, Prof. Adam Drewnowski

Genotype phenotype interactions
 Prof. Martin Kussmann, Prof. Helene McNulty

Obesity and Metabolic health: from mechanisms to interventions
 Dr. Matej Oresic, Prof. Ellen Blaak, Dr. Amaia Rodriguez

› 02.1 NuGOweek 2015

The theme for NuGOweek 2015 (5-10th September 2015) was 'Mechanisms of long-life health'. Professor Cristina Andres-Lacueva (Biomarkers and Nutritional & Food Metabolomics Research Group, University of Barcelona - ES) hosted the 12th annual conference.

The University of Barcelona, Amway, Abbott Nutrition and DSM provided financial support.

The conference attracted more than 180 participants and the sessions included:

- Inflammation, immunology, and gut health
- The role of genetics in the delivery of personalised nutrition
- Effective interventions, personalised diets and sustainable choices
- Genotype, phenotype interactions
- Obesity and metabolic health: from mechanisms to interventions
- Oral presentations by young investigators



More than 80 posters were presented. With financial support from Amway, poster prizes were awarded to:

1. Pieter Giesbertz et al. (Technical University of Munich - DE)
Acylcarnitine profiling in plasma and tissues from mouse models of obesity and diabetes
2. Hans Robert Olausen et al. (University of Oslo - NO)
Activation of p53 and Antioxidant Relevant Transcriptional response by broccoli in colon cancer cells
3. Aida Pascual-Serrano et al. (Universitat Rovira I Virgili, Tarragona – ES)
Effects of CLA, DHA or Anthocyanins on the expression of browning markers in mouse white fat depots
4. M. Emilia Juan (University of Barcelona – ES)
Intestinal metabolite profile of maslinic acid after its repeated oral administration to rats

› 02.2 Satellite meetings during NuGOweek 2015

Tools in nutrigenomics research (PhD Course): this course was attended by 30 people from Europe, Asia (Korea), North America (US) and South America (Mexico, Brazil); 14 participants were from non-Member organisations. Participation was free for those who had also registered for NuGOweek 2015. Modules included: Nutrigenomics and new biomarkers of efficacy and food intake, Nutrigenomics and the new definition of health, and Nutrigenomics in personalised nutrition. The course leaders were Baukje de Roos (University of Aberdeen - UK) and Anne Marie Minihane (University of East Anglia - UK).

Micronutrients genomics project (MGP) and MicroGennet workshop: Michael Fenech (CSIRO, Food & Nutrition Flagship - AU) and Chris Evelo (University of Maastricht - NL, coordinator of MicroGennet) hosted this one-day workshop (Thursday 10th September 2015). 30 people attended the meeting and discussed developments with respect to a large number of micronutrients. Microgennet (<http://bit.ly/1Sezsnd>) is an EU-funded exchange programme closely associated with the micronutrient genomics project (<http://bit.ly/1p8secc>). Its aim is to extend, enhance and strengthen established collaborations for the purpose of a community-driven knowledge base for micronutrient genomics.

FOODBALL - Progress meeting: FOODBALL (The FOOD Biomarker ALLiance - foodmetabolome.org) is funded by JPI Health Diet for Healthy Life (www.healthydietforhealthylife.eu) with support from nine EU Member States, Canada and New Zealand. A progress meeting was held on Monday 7th September 2015, chaired by Edith Feskens (Wageningen University, NL), involving 38 people from the consortium or stakeholder organisations.



ENPADASI - Annual meeting: JPI Health Diet for Healthy Life also funds ENPADASI (European Nutritional Phenotype Assessment Data Sharing Initiative - <http://bit.ly/1qQ8Xh5>) with additional support from several EU Member States. ENPADASI involves 51 organisations from nine countries, and Jildau Bouwman (TNO, NL) hosted a one-day progress meeting on Thursday 10th September 2015; 34 people attended. The focus of this meeting was on progress reports from the work packages and workshop on the phenotype database.



Nutrition Researcher Cohort - Progress meeting (NRC - humanstudies.tno.nl/nrc): 25 people attended the NRC progress meeting on Wednesday 9th September 2015. Discussions focused on progress with the NRC250 study, the portal, potential publications and longer-term sustainability.



› 02.3 NuGOweek 2016

NuGOweek 2016 - the 13th annual scientific meeting - will be held on 5-9th September 2016 in Copenhagen (DK). The theme will be 'Phenotypes and prevention: The interplay of genes, lifestyle factors and gut environment', and the event will be hosted by Professor Lars Dragsted (Nutrition, Exercise and Sports, University of Copenhagen).

The third PhD course - Use of large scale data in dietary intervention studies - will commence on Saturday 3rd September 2016, led Dr Marjukka Kolehmainen (University of Eastern Finland).

More information is available at www.nugo.org



› 02.4 NuGOweek 2017

Professor Diana Ivanova at the Medical University of Varna (BG) will host NuGOweek 2017. Her group joined the NuGO Network of Excellence in 2006 as collaborating centre and has hosted a number of nutrigenomics-related international events since then, and is an active partner in NutriTECH.



» 03 Courses

During 2015, NuGO (co-)organised or supported the following courses:



5th Advanced proteomics
29 April - 1 May 2015
Wageningen, The Netherlands

Advanced Proteomics (28th April-1st May 2015, Wageningen - NL)

This hands-on course was full with 16 participants, three of which obtained a travel grant through NuGO:

- Cheryl Latimer, University of Ulster (UK)
- Martín Hugo, German Institute of Human Nutrition (DE)
- Shirin Pourteymour, University of Oslo (NO)

Molecular nutrition and regulation of cardiovascular health (2nd-4th June, Dublin - IE)

This course attracted 19 participants, ten of which obtained a travel grant through NuGO:

- Ammar Ashor, University of Newcastle (UK)
- Brit Blokker, Institute of Food Research (UK)
- Paul Cherry, University of Ulster (UK)
- Amy McMahon, University of Ulster (UK)
- Romina Di Giuseppe, German Institute of Human Nutrition (DE)
- Janine Wirth, German Institute of Human Nutrition (DE)
- Marisa Durand Cavalleri, University of Barcelona (ES)
- Ascension Lupianez Barbero, University of Barcelona (ES)
- Colette O'Neill, University of East Anglia (UK)
- Oskan Tasinov, Medical University of Varna (BG)

NuGO also funded travel costs for one of the keynote speakers.

Tools in nutrigenomics research (3rd-5th September, Barcelona - ES) - see Section 02.2

During 2016 at least four courses will (co-)organised and supported with grants for early-career researchers at Member organisations. These grants cover course fee and some accommodation costs.

2016 courses will include:

- Introduction to nutritional metabolomics (Copenhagen, February 2016)
- Personalised nutrition: from scientific discovery to innovations (Newcastle, July 2016)
- Use of large scale data in dietary intervention studies (Copenhagen, September 2016)
- New developments in gut microbiome research (Autumn 2016)

» 04 PARTNERSHIPS

» 04.1 Nutrigenomics research and infrastructure projects

EU-funded projects involving NuGO and/ or NuGO member organisations, include:

Food4Me (Personalised nutrition: an integrated analysis of opportunities and challenges, coordinated by Professor Mike Gibney, University College Dublin, IE) – www.food4me.org

Food4Me finished at the end of March 2015. Dr Keith Grimaldi (Eurogenetica - GR) did most of the work assigned to NuGO as a Third Party. NuGO participated in the final symposium (26th February 2015, Brussels – BE). Personalised Nutrition: paving a way to better population health. A white paper from the Food4me project was published in mid-February 2015 and distributed widely within NuGO.



NutriTECH (Application of new technologies and methods in nutrition research – the example of phenotypic flexibility, coordinated by Dr. Ben van Ommen, TNO, NL) – www.nutritech.nl

Tasks assigned to NuGO in 2015 were restricted to discussion about the planning for the final meeting, which will be held on 13-15th June 2016. NuGO will make available four travel grants for early-career researcher, not affiliated with NuGO members but active in NutriTECH, to attend this meeting.



EuroDISH (Studying the need for food and health research infrastructures in Europe, coordinated by DLO and Wageningen University, NL) – www.eurodish.eu

NuGO contributed to the exploration of 'research infrastructure for innovative mechanistic studies' through TNO (NL), Maastricht University (NL), University of Oslo (NO) and the University of Copenhagen (DK). Wageningen University, IFR and CREA were members of the consortium whilst other NuGO Members were Third Parties. During 2015, additional funds were provided for Maastricht University (NL) to complete some additional work. EuroDISH hosted a major session during the Milan EXPO in May 2015 (IT). The project finished at the end of July 2015.



QuaLiFY (Quantify Life – Feed Yourself, coordinated by RTD Services, AT) – www.qualify-fp7.eu

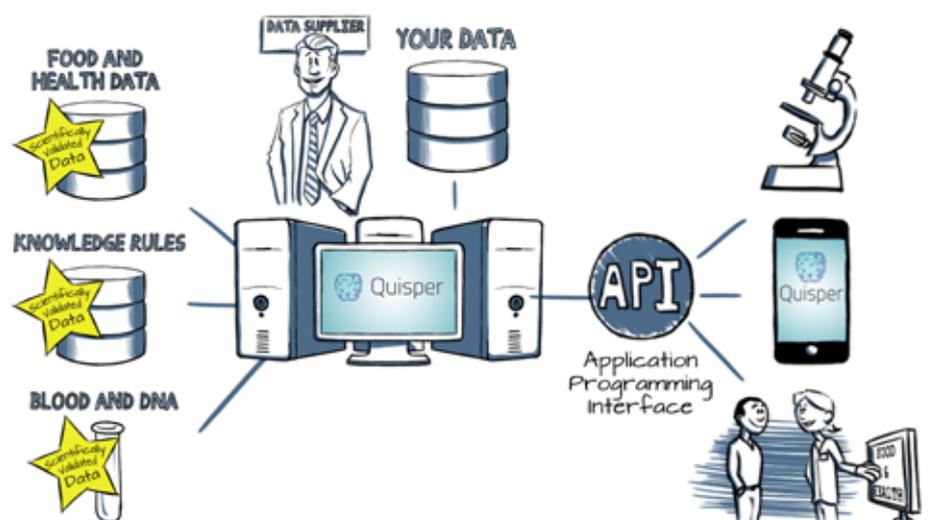
The Technical University of Munich (DE), Wageningen University (NL) and the Universities of Copenhagen (DK) and Eastern Finland (FI) were Third Parties under NuGO.

The project aimed to valorise and integrate concepts, data and knowledge, developed by previous FP6- and FP7-funded projects, for personalised dietary advice tools and services. During 2015, project meetings were held in Athens (GR – January), Ljubljana (SI – June) and Leuven (BE - December); NuGO and two Third Parties were represented at each of these meetings.



QuaLiFY ended on 31st December 2015, and seven project partners, including NuGO, established the Quisper Foundation. Quisper aims to support development and delivery of tools and services for personalise nutrition and lifestyle advice as well as for research in the areas of health and dietary behaviour.

For more information visit www.quisper.eu



› 04.2 Collaboration with International Society of Nutrigenetics/ Nutrigenomics (ISNN)



During 2015, NuGO and the ISNN were represented at one another's annual meetings. Professor John Mathers (University of Newcastle – UK) attended the ISNN meeting in Chapel Hill (US, 16-18th May 2015) and presented results from Food4Me. Professors Martin Kohlmeier (UNC Nutrition Research Institute, Chapel Hill - US) and Alfredo Martinez (University of Navarra, Pamplona - ES) represented ISNN during the NuGOweek 2015 session on 'The role of genetics in the delivery of personalized nutrition'. In 2016, NuGO will support a Young Investigators' Masterclass hosted by ISNN during a meeting in Tel Aviv (IL, 22nd-26th May 2016).

›› 05 OTHER ACTIVITIES

› 05.1 Exchange grants

At the start of 2015, NuGO opened a call for exchange grants. The aim of these grants is to facilitate further collaboration amongst NuGO Member organisations. The grants will cover travel and living expenses for research over a period greater than two weeks. By the end of 2015, two exchanges had been approved; researchers from the University of Eastern Finland (FI) and UCD (IE) will visit the University of Maastricht (NL) and Nestle Institute of Health Sciences (CH), respectively.

The second round of exchange grants was announced in early 2016.

› 05.2 NuGO website and outreach

At the end of 2014, the NuGO website (www.nugo.org) was re-launched with a new design. EuroFIR AISBL now hosts the site, and updates can be made via the NuGO Secretariat.

Biweekly news items were posted throughout 2015 and supplemented with a newly formatted NuGO newsletter. Three editions of the revised newsletter were published during 2015.



› 05.3 NuGO shared software licenses

Licenses for the software packages from Genomatix and Metacore continued in 2015. However, it was agreed these would be renewed for only one year and not two. In 2016, discussions will be held with Member organisations about how the costs involved might be better shared. Application of these software packages in research will be a topic for one or more sessions during NuGOweek 2016.

› 05.4 NuGO Secretariat

The NuGO Secretariat is based at Wageningen University (NL) in the office of the Graduate School VLAG. Ingeborg van Leeuwen-Bol is responsible for course coordination, communication and financial administration whilst Fré Pepping is the Executive Secretary, responsible for overall coordination and management issues.

» 0.6 Membership

Membership is open to organisations only, but individuals are welcome to participate in events organised or supported by NuGO. At the end of 2014, one organisation decided not to continue its membership (EdgeLeap), and one new member was welcomed (Monash University – AU); the latter represents an important step towards increased international membership.

As of January 2016, the following organisations are a member of the NuGO Association (listed as partners in NuGO Network of Excellence 2004 – 2010, and members joining subsequently):

1. **Wageningen University** - www.wageningenuniversity.nl
Lydia Afman; lydia.afman@wur.nl
2. **TNO Innovation for Life** – www.tno.nl
Ben van Ommen; ben.vanommen@tno.nl
3. **Maastricht University** - www.maastrichtuniversity.nl
Chris Evelo; chris.evelo@maastrichtuniversity.nl
4. **Technical University of Munich** - www.nutrition.tum.de
Dirk Haller; nutrition@tum.de
5. **Deutsches Institut für Ernährungsforschung Potsdam-Rebrücke** - www.dife.de
Tilman Grune; tilman.grune@dife.de
6. **Institute of Food Research** - www.ifr.ac.uk
Richard Mithen; richard.mithen@ifr.ac.uk
7. **University of Aberdeen – Rowett Institute of Nutrition and Health** - www.abdn.ac.uk/rowett
Baukje de Roos; b.deroos@abdn.ac.uk
8. **University of Newcastle, Human Nutrition Research Centre** - www.ncl.ac.uk/hnrc/people
John Mathers; john.mathers@ncl.ac.uk
9. **University of Ulster** - www.biomed.science.ulster.ac.uk/bmsri
Helene McNulty; h.mcnulty@ulster.ac.uk
10. **University College Dublin** - www.ucd.ie/foodandhealth
Lorraine Brennan; lorraine.brennan@ucd.ie
11. **University of Oslo** - www.med.uio.no/imb
Christian A. Drevon; c.a.drevon@medisin.uio.no
12. **Lund University** - www.lunduniversity.lu.se
Marju Orho-Melander; marju.orho-melander@med.lu.se
13. **Universitat de les Illes Balears** - www.uib.eu/Visitors/?languaged=1
Andreu Palou; andreu.palou@uib.es
14. **University of Eastern Finland** - www.uef.fi/uef/english
Marjukka Kolehmainen; marjukka.kolehmainen@uef.fi
15. **University of Copenhagen** - www.ku.dk
Lars Dragsted; ldra@nexs.ku.dk
16. **Institut national de la recherche agronomique Clermont-Ferrand** - www.clermont.inra.fr
Dragan Milenkovic; dragan.milenkovic@clermont.inra.fr
17. **Universitat de Barcelona** - www.ub.edu
Cristina Andres-Lacueva; candres@ub.edu
18. **Research Centre for Food and Nutrition** - www.crea.gov.it
Guiditta Perozzi; giuditta.perozzi@entecra.it
19. **Nestlé Institute of Health Sciences** - www.nestleinstitutehealthsciences.com
Jim Kaput; james.kaput@rd.nestle.com
20. **Eurogenetica** – www.eurogenetica.gr
Keith Grimaldi; Keith.grimaldi@gmail.com
21. **Agroscope, Institute of Food Sciences** - www.agroscope.ch
Guy Vergères; guy.vergeres@agroscope.admin.ch
22. **Medical University Varna** - <http://bit.ly/1QfGwO5>
Diana Ivanova; dg_ivanova@yahoo.com
23. **Monash University, Dept. of Nutrition & Dietetics** - www.med.monash.edu.au/scs/nutrition-dietetics
Chiria Murgia; chiara.murgia@monash.edu



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