



ENA GRANADA POSTGRADUATE SCHOOL 2009

ROLE OF NUTRITION ON BRAIN DEVELOPMENT AND BEHAVIOUR

NUTRENVIGEN-G+D FACTORS MASTER MEETING 2009



www.metabolic-programming.org/academy.htm
www.nutrimenthe.eu
www.nutrenvigen-gd.com

ENA GRANADA POSTGRADUATE SCHOOL



1st NUTRENVIGEN-G+D FACTORS MASTER MEETING

ROLE OF NUTRITION ON BRAIN DEVELOPMENT AND BEHAVIOUR



Granada, 1-4 October, 2009



INTRODUCTION

The Early Nutrition Academy over the past 2 years has organised a series of highly successful Symposiums, trainings and postgraduate courses for young scientists with a commitment to paediatric nutrition research, which have been held about every year. These courses have provided up-to-the-date scientific information, have trained communication and presentation skills, have helped younger academicians to network and build careers in the field, and provided enthusiasm to the participating scholars. I feel the success of these courses is in our mutual interest, as they help to considerably strengthen the field of academic paediatric nutrition.



The Early Nutrition Academy (ENA) Committee on Nutrition Winter School was designed to:

- Offer a comprehensive Curriculum on mother-infant and paediatric nutritional programming research, literature, and clinical trials.
- Provide well-founded advice on the prevention, diagnosis, and management of early nutrition programming of adult diseases.
- Offer unique opportunities to learn from and interact with expert faculty from various European centres, as well as from participants from around the world interested in early nutrition programming.
- Serve as an introduction to the new opportunities in Early Nutrition Programming research.

The next ENA Postgraduate Course will be held in Granada from 1-4 October 2009 which shall be focussed on *“Role of Nutrition on Mental Performance and Behaviour”*. The organising team consists of Prof. Berthold Koletzko, head of the Nutrition and Metabolism Division at the University of München, and Co-ordinator of the EU FP6 EARNEST Project and President of the Early Nutrition Academy and Prof. Cristina Campoy, Neonatologist at the University of Granada, and coordinator of the EU FP7 NUTRIMENTHE Project, who in collaboration with her local team, will make this course a reality.

VENUE

These 3 & half days of Postgraduate School on *“Role of Nutrition on Brain Development and Behaviour”* will be held in Granada, Spain, at the Granada’s Sciences Park (<http://www.parqueciencias.com/>) in Granada city.

DATES AND TIMES

The ENA Postgraduate School will commence at 8:30 on Thursday, 1st of October 2009, and will end on Sunday, 4th October 2009, around mid-day.

COSTS:

The fee for these 3 and half days of Postgraduate School is € 400.

The fee includes:

- Participation in all activities of the course
- Course materials
- Ground transportation
- 1 meal & 2 coffee breaks per day
- Dinner 3rd October
- Diploma



REGISTRATION FORM

The registration deadline is 25th September **2009**. There is a **limit of 40 places** on the course. You can find the registration form in www.metabolic-programming.org (Early Nutrition Academy trainings), www.nutrimenthe.eu, www.nutrenvigen-gd.com.

Additionally, you should send to the organizer (ccfolgoso@gmail.com) a short CV to know your research topic and your specialty.

WHO SHOULD ATTEND THE POSTGRADUATE SCHOOL?

Pre-requisites for participation includes previous experience in clinical or basic science research related to paediatric nutrition, and a career potential with potential work in paediatric nutrition research.

- Clinicians
- Nutrition researchers
- Clinical nutritionists and dieticians
- Industrial researches, etc

The Postgraduate School is aimed at researchers and clinicians and other health care professionals interested in developing an academic career in early and paediatric nutrition.

POSTGRADUATE SCHOOL LEARNING OBJECTIVES

After the Postgraduate School, participants should:

- Have a complete and updated overview of Nutrition impact on Brain Development and Behaviour.
- Have a current practical knowledge about the nutrition approach for preventing neurodevelopment disorders.
- Read critically and be able to discuss nutritional scientific literature.
- Be familiar with emerging trends in Nutrition related to Brain Development, Cognition and Behaviour.

FORMAT

The Postgraduate School will be a mixture of plenary sessions and small group discussions in which participants will practice and develop their knowledge in the role of nutrition on the brain development and behaviour as well as their nutritional evidence-based medicine knowledge and skills. Informal social events will encourage free discussion and the establishment of ongoing links.



TOPICS

Main topic: “Role of Nutrition on Brain Development and Behaviour”

Sub-topics:

- ✓ Brain Development
- ✓ Assessment of Brain Development
- ✓ LC-PUFAs and Brain
- ✓ Nutrient deficiency and ADHD Syndrome
- ✓ Role of minerals on Brain health
- ✓ Vitamins and Brain Development
- ✓ Obesity and executive functions
- ✓ Long-term effects of Pre- & perinatal malnutrition on mental performance and behaviour
- ✓ Impact of gut mycrobiota on brain development
- ✓ Paediatric illnesses affecting brain development
- ✓ Nutrients & gene expression related to cognitive development and behaviour
- ✓ Nutrition and Neuropsychopathology in children and adolescents



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PROGRAMME

DAY	TIME	TOPIC	SPEAKER
Day 1 Thursday, 1 October 2009	8:30 - 9:00	Welcome Introduction into the Course	Cristina Campoy (Spain)
	9:00 - 9:45	Morphological aspects of brain development	Enrique Hilario (Spain)
	9:45 - 10:30	Influence of the pre and perinatal dietetic factors on the neurodevelopment	Manuel Castro-Gago (Spain)
	10:30 - 11:00	Coffee break	
	11:00 - 11:45	Breast milk properties for mental performance and behaviour	Kim F. Michaelsen (Denmark)
	11:45 - 12:30	Atlantic diet: fish. Relevance on the neurodevelopment and brain function	Rosaura Leis (Spain)
	12:30 - 13:15	Very Low Birth Weight Infant Neurodevelopment: Influences of Hepatic Toxicity	Angela Ruíz-Extremera (Spain)
	13:30 - 15:30	Lunch	
	15:30 - 16:15	Crononutrition and Behaviour Development	Montserrat Rivero (Spain)
	16:15 - 17:00	The effect of diet and genes on brain development, mental performance & behaviour: current knowledge	Pauline Emmet (UK)
	17:00 - 17:30	Coffee Break	
	17:30 - 18:30	Training How to assess dietary intake in neurodevelopment studies	Pauline Emmet (UK) / Verónica Luque (Spain)
	18:30 - 19:00	How do I get my results published?	Kim F. Michaelsen (Denmark)
	20:30	*Special Night visit to the Alhambra	

*For organisation reasons tickets must be paid in the Registration Fee. Number of places available depending on tickets bought.



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DAY	TIME	TOPIC	SPEAKER
Day 2 Friday, 2 October 2009	8:30 - 9:00	Delegates presentation of diet training	Pauline Emmett (UK) / Verónica Luque (Spain)
	9:00 - 9:45	Multinutrients supplementation and mental performance in children	Catherine Transfer (The Netherlands)
	9:45-10:30	Effects of prenatal micronutrients during prenatal life on the neonatal behavior	Fina Canals (Spain)
	10:30 - 11:00	Coffee break	
	11:00 - 11:45	Micronutrients in children diet and Brain Development	María Ramírez (Spain)
	11:45 – 12:30	Antenatal Folic Acid Supplementation: Effects on Cognition in the Early School Years	Cristina Campoy (Spain)
	12:30 - 13:15	Maternal homocysteine and cognitive achievement in children	Michelle Murphy (Spain)
	13:30 -15:30	Lunch	
	15:30 - 16:15	Mitochondrial genomic impact on neurodevelopment	Javier Caballero (Spain)
	16:15 - 17:00	Importance of Nutrition in Metabolic Diseases	Domingo González-Lamuño (Spain)
	17:00 -17:30	Coffee break	
	17:30 - 18:30	Training: Neuroprotection based in nutritional approach in patients affected of Metabolic Diseases	Domingo González-Lamuño (Spain)
	18:30 – 19:00	Collaboration between industry and academia: a successful way to innovation	María Rodríguez-Palmero (Spain)



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DAY	TIME	TOPIC	SPEAKER
Day 3 Saturday, 3 October 2009	8:30 - 9:00	Delegates presentation of Metabolic Diseases training	Domingo González-Lamuño (Spain)
	9:00 – 9:45	LCPUFAs during the postnatal period: effect on brain development?	Mijna Hadders-Algra (The Netherlands)
	9:45 - 10:30	Cognitive Evoked Potentials and Nutrition	Eveline de Bruin (The Netherlands)
	10:30 - 11:00	Coffee Break	
	11:00 - 11:45	Assessment of minor neurological dysfunction in children: theory and practice.	Mijna Hadders-Algra (The Netherlands)
	11:45 - 12:30	Obese mothers and neonatal gut bacteria: consequences for child neurodevelopment	Cristina Campoy (Spain)
	12:30 - 13:15	Relationship between obesity & cognitive impairment	Antonio Verdejo (Spain)
	13:30 - 15:00	Lunch	
	15:00 - 15:45	Neuroimaging finding of the association between nutrition and the brain	Antonio Verdejo (Spain)
	15:45 - 16:45	Probiotics and Prebiotics in Early Life Training: Future potential role of probiotics and prebiotics on brain development	Hania Szwajeska (Poland)
	16:45 - 17:15	Coffee Break	
	17:15 – 18:00	Training: Anthropometry assesement during brain development	Verónica Luque (Spain)
	18:00 – 18:45	“Systematic review and meta-analysis: what do we need to know?”	Hania Szwajeska (Poland)
	18:45 - 19:15	Current situation in Europe of the research on brain development	Elena Martin-Bautista (France)
	20:30	DINNER and Farawell Party	



DAY	TIME	TOPIC	SPEAKER
Day 4 Sunday, 4 October 2009	9:00 - 9:45	Communication training	Jayne Evans (UK)
	9:45 - 10:30	Effect of mercurial environmental contamination on children neurodevelopment	Carmen Freire (Spain)
	10:30 - 11:00	Coffee Break	
	11:00 - 11:45	"Grants, networking and project management for young investigators in Europe"	Elena Martín-Bautista (France)
	11:45 - 13:00	Training Anatomical model of Brain Functions during development	M ^a Angeles Ballesteros (Spain)
	13:00 - 13:15	Wrap-up and goodbye	Cristina Campoy (Spain)



Organisers:

Cristina Campoy, Prof., MD

Department of Paediatrics. University of Granada. Spain

Bert Koletzko, Prof., MD

Department of Paediatrics. Ludwig-Maximilians University of München, Germany

Honour Committee

Research Vicerrector University of Granada

Dean of the School of Medicine. University of Granada

SPEAKERS (in alphabetical order):

- * M^a Angeles Ballesteros
(University of Granada, Neurosciences Institute, Spain)
- * Eveline de Bruin
(UNILEVER, The Netherlands)
- * Javier Caballero
(Hospital Reina Sofía. Córdoba, Spain)
- * Cristina Campoy
(University of Granada, Neurosciences Institute, Spain)
- * Fina Canals
(University of Rovira i Virgili, Spain)
- * Manuel Castro-Gago
(University of Santiago de Compostela, Spain)
- * Pauline Emmett
(University of Bristol, UK)
- * Jayne Evans
(Beta-Technology, UK)
- * Carmen Freire
(University of Granada. CIBERESP. Spain)
- * Domingo González-Lamuño
(University of Cantabria, Spain)
- * Mijna Hadders-Algra
(University Medical Centre Groningen, The Netherlands)
- * Enrique Hilario
(University of Bilbao, Spain)
- * Rosaura Leis
(University of Santiago de Compostela, Spain)
- * Verónica Luque
(University of Rovira i Virgili, Spain)
- * Elena Martín-Bautista
(European Science Foundation (EFS), France)
- * Kim F. Michaelsen
(University of Copenhagen, Denmark)
- * Michelle Murphy
(University of Rovira i Virgili, Spain)
- * María Ramírez
(ABBOTT Laboratorios, Spain)



- * *Monserrat Rivero*
(Laboratorios ORDESA, Spain)
- * *María Rodríguez Palmero*
(Laboratorios Ordesa, Spain)
- * *Angela Ruíz-Extremera*
(University of Granada, Spain)
- * *Hania Szwajeska*
(University of Warsaw, Poland)
- * *Catherine Transler*
(UNILEVER, The Netherlands)
- * *Antonio Verdejo*
(University of Granada, Spain)



TRAVEL INFORMATION

Rich in both history and culture, Granada is an ideal holiday destination for anyone looking to visit Spain. With historical monuments and relaxing gardens to explore, it's easy to see why so many travelers are keen to find [cheap flights to Granada](#). This beautiful city occupies one of the most historically diverse destinations in Spain and so anybody looking to delve into the past can count on an unforgettable experience among Granada's many fascinating buildings and monuments.

Granada Airport is based about 16 km (10 miles) from the city centre. Bus journey times take approximately 30 minutes though taxis are also available.

Getting around Granada is also very easy. The bus and train networks are excellent and are also relatively inexpensive, making them ideal for exploring the city.

However, visitors should not discount exploring the place on foot. Many of the local attractions are central and in any case wandering through the city's cobbled streets gives one an opportunity to explore the city in a relaxed manner.

For additional help in identifying which areas are not to be missed, take a look at the cheap flights travel guide to Granada. Not only does it feature information on travelling to Granada but also includes a number of useful travel tips to help ensure that you have a hassle-free holiday. These include climate information and detailed potential itineraries that make planning your trip as easy as a click.

The nearest airport to the Sierra Nevada is the airport of Granada-Jaén (Federico García-Lorca) (Phone: 0034-958 245 200) is located 15 km from the city centre of Granada. You will probably have to take a connection flight via Madrid or Barcelona. Iberia (and all their affiliates) www.iberia.es and Spanair www.spanair.com and Ryanair (www.ryanair.com) offer frequent flights. Flights from and to the UK and some other important European cities are being offered.

The bigger and better linked airport is the one of Málaga (Pablo Picasso - AGP), but it is about 1.5 hours away by car from Granada.

If you arrive at Málaga airport you can easily find bus connections to Granada.

A taxi to Granada city centre costs from 24.00 € in a four seats taxi to 35.00 € in a six seats taxi would (one way).

How to move along Granada (TAXIS/BUS)

All the taxis in Granada are official and sure.

Companies and telephones

-Tele-Radio-Taxi

+34 958 280 654 (12 lines)

-Radio Taxi G.S.L.

+34 958 132 323 (24 hours)

-Servi-Taxi (Permanent service for Granada)

+34 958 400 199



Language

Spanish is the spoken language throughout Spain. The official language of the course will be English & Spanish (translation available).

Banking & Currency

The majority of banks are open Mon-Fri 08.30 -15.00 with some city centre offices open Saturday morning. Automatic Machines are widely available throughout the area and most are linked to Visa, Maestro or Plus international money systems.

Spanish currency is Euro (€). Most hotels, restaurants and shops in Spain accept major credit cards such as American Express, VISA, Mastercard, Access and Diners Club.

Electricity

The standard voltage in Spain is 240V AC. Plugs have 2 round pins.

Weather

The weather and climate in Granada is extremely sunny, warm and enjoyable, with mild winters and hot summers. Typical of the Mediterranean, Granada's stunning weather, combined with its scenic locations, make this part of Spain an extremely appealing place to visit.

The autumn weather and climate in Granada is pleasant, with average temperatures of 20°C / 68°F in September and 15°C / 59°F in October. A popular time of year to visit, autumn in Granada brings a number of rain showers, together with cold nights, when coats are necessary.

HOTEL INFORMATION

- **HOTEL NAZARÍES *******

http://www.hoteles-ma.es/hoteles_en_granada/hotel_Nazaries/

C/ Maestro Montero, 12

18004-Granada

Tel. (0034) 958 187 600

Fax. (0034) 958 187 601

- **HOTEL ANDALUCIA CENTER 4******

<http://www.hotelescenter.es/hotelDetail.asp?id=4&idioma=1>

Avda. América s/n

18006-Granada

Tel. (0034) 958 181 500

Fax : (0034) 958 129 484

WEBSITES INFORMATION

☞ www.spain.info

☞ www.turismodegranada.org