

# EASO Executive Summary Report



**May 25-28 2011**

Istanbul, Turkey

ECO2011 was held in Istanbul Turkey from 25th to 28th May 2011 and attracted 2000 international delegates. The scientific programme featured 7 plenary lectures, 15 review sessions (60 presentations), 10 oral sessions (60 presentations), 5 Association Sessions, 3 EASO Task Force Workshops, 8 topic workshops and 5 Industry Supported Sessions.

**This following report, giving a snapshot of the scientific programme, was commissioned by the European Association for the Study of Obesity and has been brought to you in partnership with Weight Watchers International.**

# The European Association for the Study of Obesity (EASO)

## Established in 1986

EASO aims to promote research into obesity, facilitate contact between individuals and organisations, and promote action that tackles the epidemic of obesity

EASO is a leading biomedical association in Europe with networks in over 30 countries. It hosts the annual European Congress on Obesity (ECO), has dynamic and active Task Forces, organises educational activities throughout the region and plays a major role in EU/WHO projects.

The **objects** of EASO are:

- To promote the preservation and protection of health and relief of sickness for the public benefit in the field of obesity and its related disorders
- To promote research, the dissemination of the results of such research and exchange of scientific information in the field of obesity within Europe
- To develop a deeper understanding of how to achieve and maintain a healthy bodyweight, and to manage and prevent obesity and its related conditions by those engaged in the study of obesity – healthcare professionals, health related organisations, governments and the European community

EASO now has 30 member associations representing more than 4000 individuals in 31 countries. We hope to add Latvia and Ukraine as members during 2010. Through EASO, obesity is discussed in 28 languages!

Members come from a wide range of professions and include clinicians, scientists, allied health professionals working in the field of obesity research and education, opinion leaders and advocacy groups, health related organisations, governments, policy makers, representatives of UN Bodies and the international community.

[www.easo.org](http://www.easo.org)

## **The European Congress on Obesity (ECO)**

The ECO is the most important annual scientific event on obesity in Europe. The objectives of the ECO are:

- To provide an annual forum for the dissemination of information about research advances in the field of obesity
- To identify, debate and promote innovative preventive and treatment strategies to reduce the prevalence of obesity and its associated burden of diseases
- To provide networking opportunities for experts in the field of obesity research and management

The ECO is truly international, attracting participants from over 75 countries. Participants are experts and opinion leaders in the field of obesity and its related conditions. Participants cover a wide range of professions and the interdisciplinary nature of Obesity research and education allows the programme to address key issues on Obesity and its numerous co-morbidities.

### **Previous ECOs:**

1988 Stockholm, Sweden	2000 Antwerp, Belgium
1989 Oxford, UK	2001 Vienna, Austria
1991 Nice, France	2003 Helsinki, Finland
1992 Noordwijkerhout, Netherlands	2004 Prague, Czech Republic
1993 Ulm, Germany	2005 Athens, Greece
1995 Copenhagen, Denmark	2007 Budapest, Hungary
1996 Barcelona, Spain	2008 Geneva, Switzerland
1997 Dublin, Ireland	2009 Amsterdam, Netherlands
1999 Milan, Italy	2011 Istanbul, Turkey

### **Future ECOs:**

- 2012 Lyon, France: [www.easo.org/eco2012](http://www.easo.org/eco2012)
- 2013 Liverpool, UK: [www.easo.org/eco2013](http://www.easo.org/eco2013)
- 2014 Sofia, Bulgaria: [www.easo.org](http://www.easo.org)

EASO and Weight Watchers have published this report in order to demonstrate the scientific depth and breadth of the European Congress on Obesity. The report highlights a selection of the 75 scientific sessions that took place during ECO2011 and should therefore be regarded as a snapshot overview of the congress scientific programme. The report was prepared by an independent medical writer and neither EASO nor Weight Watchers can take any responsibility for external scientific interpretations of its content.

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### **Friday May 27<sup>th</sup> 2011**

- Oral Session: Parents, parenting and childhood obesity
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- Plenary Lecture: Controversies in Obesity: Should Metabolically Normal Obese Patients be Treated?
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**Wednesday May 25<sup>th</sup> 2011**

### **EASO Public Health and Prevention Task Force Workshop**

One of the first sessions to open this year's conference was chaired by Professors Lauren Lissner from Sweden and Chantal Simon from France, entitled 'What can we learn from collaborative European programmes?'

The aim of the session was for investigators to share the stories behind their projects and to talk about any issues that arose, such as any methodological problems or cultural misinterpretations.

The session was kicked off by Dr João Breda, the Programme Manager for Nutrition, Physical Activity and Obesity at the WHO Regional Office for Europe, based in Copenhagen.

Dr Breda chose to talk about COSI – the Childhood Obesity Surveillance Initiative conducted by WHO Europe - one of the largest child obesity monitoring systems in the world.

Fifteen member states have signed up to the initiative, which is being led by Portugal and Italy, and some 50,000 children are involved.

The initiative aims to routinely measure trends in overweight and obese primary school children (6-9 year olds) in Europe and to understand the progress of the epidemic and allow comparisons between countries.

Dr Breda explained that before COSI was established, it was very hard to compare childhood obesity and overweight prevalence from country to country.

Only a few countries had data and measurement tools were not standardised. Methods are now reliable, he said, and COSI is providing important data to health ministries across Europe - helping to put obesity on the agenda.

Preliminary results of the first trial school year (2007-2008) indicated that one in four children or 24 per cent of children aged 6 to 9 years old were overweight or obese, with a range of 18 to 45 per cent.

Dr Breda said he was very optimistic about the project, but that more resources were needed as he hopes many more countries will sign up to the initiative. His vision is for COSI to become the biggest and most recognised child obesity surveillance system in the world.

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Iris Pigeot, Professor of Statistics from the University of Bremen in Germany, then spoke about the IDEFICS project – the Identification and Prevention of Dietary and Lifestyle Induced Health Effects in Children and Infants.

Dr Pigeot, from the Bremen Institute for Prevention Research and Social Medicine, gave a useful and informative lecture on the lessons her team had learned from the study and the way they carried it out.

The aim of the study, carried out across Europe, was to investigate the etiology of diet and lifestyle-related disease in children aged 2 to 9 years old and to develop primary intervention programmes to reduce that prevalence.

The longitudinal study started with more than 16,000 children at baseline. Dr Pigeot said basic results showed that Italy had more than 40 per cent of obese and overweight children in this age group. They were followed by Cyprus, Spain, Hungary, Germany, Estonia, Sweden, with Belgium doing best.

The researchers looked at, among other things, income levels. As expected, the highest prevalence of overweight and obese children was found in the low-income group. They also looked at the role of sleep and its effect on obesity levels. They found that with the exception of Estonia, the countries with the highest prevalence of overweight and obese children also had the shortest sleep duration among them.

In terms of lessons learned from the project, Dr Pigeot noted that face-to-face meetings among collaborators were really necessary to create a trustful working atmosphere. She highlighted the need for translations and back translations to make sure that the context was understood in each country and warned about different cultures misinterpreting questions.

She added that extra effort is needed to reach less advantaged groups and said that involving parents in interventions can be the most difficult part of a project.

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Dr Stefan Storcksdieck from the European Food Information Council (EUFIC, [www.eufic.org](http://www.eufic.org)) then spoke on behalf of the FLABEL consortium. (Food Labelling to Advance Better Education for Life).

The objective of this project, which has 13 partners across Europe, is to determine how nutrition information on food labels can affect people's dietary choices. The project is also involved in developing guidelines for policy makers and for food industries to know what's important when devising new labelling systems.

Dr Storcksdieck explained how one strand of the study has looked at different kinds of food labels – those which show Guideline Daily Amounts (GDAs), those with healthy choice logos, those with hybrid systems involving a mixture of information and those with a plain traffic light system - and tried to ascertain whether people were familiar with them and how well they worked.

It found mixed results for the impact on choice across 4 different countries, with simple logos working in some places and more complex labels working better elsewhere. In terms of the liking and attractiveness of different labels, the researchers found a hybrid system of GDAs and traffic lights scored best across 4 countries studied.

Overall, the study found that providing nutrition information on energy and the 4 key nutrients to be limited, i.e. fat, saturated fat, sugar and salt, in a consistent way can lead to good understanding and facilitate healthy choices among consumers.

Elements such as GDAs or health logos might further enhance attention to and liking of nutrition labels, yet motivating consumers to use these labels in the first place remains a major challenge.

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Harry Rutter, Director of the National Obesity Observatory and Honorary Senior Clinical Lecturer at the University of Oxford, then gave an animated talk to the audience about the HEAT project - the Health Economic Assessment Tool.

The HEAT project was started over 10 years ago as a pan-European collaboration, coordinated by WHO. It is an online resource tool, which calculates the economic savings resulting from reductions in mortality as a consequence of regular walking or cycling. Dr Rutter explained how the project was based on the idea of taking a public health problem and turning it into an economic issue.

Taking an evidence-based approach, the team came up with the tool which works out the following question: if x people cycle or walk y distance on most days, what is the economic value of mortality rate improvements? They then took the Excel tool and presented it to transport professionals and economists – targeting those outside the health arena.

The strategy paid off as the application has been used widely around the world. It has been adopted by the UK government's Department of Transport while other countries are seriously looking at using it.

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Dr Amika Singh, from the VU University Medical Centre in Amsterdam, then gave an interesting presentation about the European Energy balance Research to prevent excessive weight Gain among Youth programme, also known as ENERGY.

The collaborative project has 14 partners from Europe as well as Australia and is focussed on the prevention of overweight and obesity among 10-12 year olds.

The team are currently developing and preparing the evaluation of an intervention study. But they have finished all the systematic reviews and the cross-sectional study and Dr Singh presented some preliminary results from this.

The cross-sectional study was conducted across seven European countries, involving 7,000 children and their parents. The most striking finding from the school-based survey came from Greece, where 38 per cent of girls were found to be overweight, Dr Singh said. For boys, the picture was even worse with 46 per cent of all Greek boys aged 10 – 12 found to be overweight. For obesity rates there was a comparable picture with a 10.2 per cent prevalence rate among girls in Greece and an 11.3 per cent rate among boys.

Dr Singh spoke about some of the lessons learned from the programme. She highlighted the need to be open with the consortium and to be aware of financial guidelines.

For more information on ENERGY head to [www.projectenergy.eu](http://www.projectenergy.eu)

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Dr Jean-Michel Borys, then gave us a detailed insight into EEN – or the EPODE European Network. This is a multi-stakeholder approach, which aims to help communities implement effective and sustainable strategies to combat childhood obesity. It is based on the EPODE methodology, which was developed in France in 2004 and now extends to 226 French cities. The four pillars of EPODE are – strong political will, a sound scientific approach, a social marketing approach and multi-stakeholder approach. The EEN therefore is a pan-European project, which is supported by the European Commission and private partners.

One of the main objectives of the EEN is to raise political, institutional and scientific awareness of the relevancy of local, long-term approaches to prevent childhood obesity. This means getting all stakeholders – from politicians to national public health agencies - to commit to implementing EPODE strategies across Europe.

Another objective is to deliver concrete guidelines that can be transferred to countries willing to deploy an EPODE-style programme.

For more information visit [www.epode-european-network.com](http://www.epode-european-network.com)

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Dr Stefaan De Henauw, from Ghent University in Belgium, then gave a stimulating talk about the HELENA project –also known as Healthy Lifestyle in Europe by Nutrition in Adolescence.

He explained that the project started in 2005 and has a consortium of 10 countries. And impressively, it has already had more than 130 peer-reviewed papers published and more than 20 PhD theses produced from it.

Its aim is to develop innovative and harmonise methods for the assessment of lifestyle habits in adolescents across Europe with a special focus on diet, nutrition and physical activity,

Within this outline lies ambitious set of objectives: to assess dietary and physical activity patterns and nutritional status among European adolescents; to look at knowledge and attitudes towards nutrition and physical activity and to establish the main determinants of their food choice and preferences; to develop healthy food and marketing strategies for consumers to improve the diet of adolescents and to develop a lifestyle education programme.

The project uses computer-based tools– whereby adolescents are asked to fill in questionnaires online about physical activity or diet. The computer then processes the information through an algorithm and gives the participant advice on how to improve and change their behaviour.

Dr De Henauw presented some data from cross-sectional surveys taken from 10 cities across Europe. More than 3,500 adolescents took part by answering questionnaires and more than 1,000 gave blood samples.

The results showed a total prevalence of overweight and obesity of about 24 per cent and confirmed what has been seen in other studies – that the highest prevalence was found in Italy, Crete, Greece and Spain.

Other data showed that many adolescents are eating very little fruit and vegetables and a substantial proportion tend to skip breakfast. Data also showed poor fitness levels among the youngsters.

For more information go to [www.helenastudy.com](http://www.helenastudy.com)

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The final speaker in this session was Dr Harry Rutter (again), who spoke on behalf of colleague Nick Cavill about HEPA – the European Network for the Promotion of Health-Enhancing Physical Activity.

The network was started about five years ago and is a collaborative project, which aims to achieve better health through physical activity across Europe. A large number of different organisations are now involved in the project, including public authorities, academics and ministries. Dr Rutter said HEPA seeks to take research findings and translate them into action and is full of enthusiastic people who are keen to drive change through. They are also very keen for more people to join.

For more information visit: [www.euro.who.int/hepa](http://www.euro.who.int/hepa)

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### **Industry Supported Satellite Session: GSK - Beyond BMI: The Healthy Weight Debate**

This session was chaired by Dr Louis Aronne from the US and Dr Hasan Ilkova from Turkey.

The opening speaker was Tim Marsh, Chief Executive of Micro Health Simulations and an Associate Director at the National Heart Forum in the UK, who presented a fascinating talk on 'Modelling the Benefits of Modest Weight Loss'. Dr Marsh was the leader of the National Heart Forum MHS Modelling team who was commissioned by the UK Chief Scientist Sir David King in 2005 to provide quantitative modelling for the groundbreaking Foresight Report on obesity.

Following the report's publication in 2007, Dr Marsh and his team were also commissioned by the CDC and the NIH to carry out similar modelling work looking at obesity trends in the US. Dr Marsh presented data to the session showing that obesity is rising inexorably and that trends for the UK and USA are broadly similar.

He highlighted how obesity is fast overtaking tobacco as the largest, preventable cause of ill health in the UK. Dr Marsh also showed compelling new data that is set to be published in a forthcoming edition of the Lancet, looking at what could be

achieved through modest weight loss in terms of reduction in number of cases of diabetes, stroke and cancer in the UK and US – showing some staggering numbers.

He also produced some staggering estimations for the healthcare costs that could be avoided through modest weight reduction. However we were unable to report these figures as they have not yet been published.

Overall, the data showed that small changes in BMI can make substantial changes to the burden of obesity.

For more information go to [www.heartforum.org.uk](http://www.heartforum.org.uk)

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Professor Gema Frühbeck, Senior Consultant in the Department of Endocrinology and Nutrition at the Clinica Universidad de Navarra in Pamplona, Spain, then gave a thought-provoking presentation on 'The Healthy Weight Debate'.

Prof Frühbeck raised the idea that we need to shift our attention away from body weight and BMI alone and concentrate more on a person's body composition and body fat.

She said it is important to know how much body fat a person has and where it is located as intra-abdominal visceral fat is dangerous and associated with greater risks. This is important both for diagnosis and for follow-up treatment, she said.

She highlighted the case of a patient who comes to a clinic at six months and is very disappointed because he has hardly lost any weight. But she said that if you look at body composition, you may see a decrease in body fat which would be a very satisfactory outcome. Similarly you may see the opposite effect in a woman who has lost 20kg and is perfectly happy.

But when you look at her body fat and composition you will find it has increased because she has been crash dieting. Her take-home message was that it is important when defining success in the treatment of obesity not to focus on weight loss alone. She added that body fat percentage and body fat composition are much better indicators of treatment.

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The next talk was by Dr Louis Aronne, Clinical Professor of Medicine at Weill-Cornell Medical College of Cornell University and Adjunct Associate Professor of Clinical Medicine at Columbia University College of Physicians and Surgeons. He spoke on the topic of 'Early Intervention and Treatment Options'.

Dr Aronne started off by highlighting the fact that some 62 diseases are thought to be linked to obesity. Some of these may be linked to an excess of hormones released by fat cells – but there are many causes contributing to the dramatic increase in obese populations, he said. He highlighted some new ideas thought to be driving the obesity epidemic, such as sleep debt, increasing maternal age, and the role of pharmaceutical drugs.

He also pointed out that many commonly prescribed medications cause weight gain, with research estimating that about 5 to 7 per cent of the obesity epidemic is caused by such medication. At the same time, Dr Aronne said the evidence is growing that modest weight loss can bring great benefits to obese people.

He said a recent paper showed that people who lost 10 per cent of their body weight saw the amount of hormones produced reduce by 40 to 50 per cent.

Modest weight loss can also lead to a reduction in leptin levels and a tremendous reduction in risk factors. And it can improve cardiovascular risk profiles, quality of life, osteoarthritis of the knee, sleep apnoea, lung function, and lead to a reduction in mortality in Type 2 Diabetes. Dr Aronne added that it was important to set realistic goals with patients and get them to accept slow, incremental progress of 5 to 10 per cent when talking about weight loss.

He said a variety of diets can help patients lose weight along with other steps such as keeping a food diary and limiting eating away from home. He concluded by saying that the best prevention is early prevention. Looking to the future, he added it would be a good thing if doctors started treating people with lower weights with less intensive interventions.

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David Haslam then gave a lively presentation about the 'Implications for Engaging the Patient'.

Dr Haslam is a British GP (family doctor), a bariatric physician at Luton and Dunstable Hospital and the current chair of the National Obesity Forum in the UK. His main argument was that it doesn't matter how good obesity surgery or obesity drugs are - the most important thing a doctor can do is to engage with the patient and raise awareness of obesity.

He warned that there is a whole population of obese and overweight people who are not being identified and not being screened. And he said this is the biggest barrier to managing obesity - not engaging with the people who need help. Dr Haslam said his rule number one is always to engage with a patient - even if they have not come to see him, but are accompanying someone else. He won't let that person leave without raising the issue of their weight with them.

His rule number two is to always put the onus on the doctor and say 'Am I looking after you properly?' - without making the patient feel bad. His take-home message was that doctors need to identify, screen, manage and treat their patients. He added that it shouldn't take long at all for a doctor to engage with a patient.

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**The Open Plenary Lecture in the main auditorium that evening was given by Dr João Breda, who gave an informative talk entitled 'WHO Europe Monitoring - An Update from Istanbul 2006'.**

Dr Breda is the Programme Manager for Nutrition, Physical Activity and Obesity at the WHO Regional Office for Europe in Copenhagen. He gave an overview of recent

progress made by the organisation since the WHO Ministerial Conference on Counteracting Obesity in Istanbul in 2006.

This meeting led to the European Charter on Counteracting Obesity and since then Dr Breda said things have been evolving at a “good speed” in terms of preventing and tackling overweight and obesity. He said the charter recognised that individuals alone are not responsible – that society as a whole has a responsibility tackling this problem. It also highlighted the need to involve different stakeholders and the need for international co-ordination.

Dr Breda said that this September, for the second time in history, the UN will hold a high-level conference in New York where heads of state will discuss the link with non-communicable diseases and development. He hopes that obesity, physical activity and nutrition will be high on the agenda.

He added that more than one million lives could be saved per year in Europe if the right action is taken in terms of tackling non-communicable disease, including obesity. He then presented data that WHO has been collecting from member states on the prevalence of overweight and obese people. The data shows that Malta has the worst prevalence for overweight and obese men, while the UK comes out top for women.

He also showed data from COSI - the WHO Childhood Obesity Surveillance Initiative –which is monitoring 50,000 children from 15 European countries. This large study, which Dr Breda hopes will become a “milestone” in the study of obesity, shows that prevalence of overweight and obesity is highest in Southern Europe. Overall about 24 per cent of children are overweight or obese.

Dr Breda also spoke about nutrition and the fact that even though 400 million people are overweight in Europe, some 178 million children under the age of 5 across the world are stunted as a result of malnutrition.

In some countries this is happening at the same time, such as in Tajikistan when some 42 per cent of women are overweight or obese, and yet 30 per cent of children are stunted. In terms of action, Dr Breda said the WHO is co-ordinating regional and national action, as well as monitoring and supporting member states.

He highlighted a new project – the NOPA database -which compiles information for the WHO European Member States to monitor progress on nutrition, diet, physical activity and obesity. Finally, he added that the WHO is developing a “inspirational and visionary” approach for tackling obesity which will put them in the “driving seat” in terms of the health of European citizens.

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Dr Breda’s lecture was followed in the main auditorium by the opening ceremony. EASO President Professor Jean-Michel Oppert warmly welcomed all the conference members and outlined the goals of the congress.

These included forging European links between individuals and organizations concerned with the study of obesity; enhancing understanding and treatment of

obesity; connecting researchers and developing a coherent approach to obesity management throughout Europe.

He then handed over to Professor Volkan Yumuk - Chair of the 2011 congress - who took to the stage to give some facts and figures about the number of abstracts and posters presented at this year's conference.

Professor Yumuk said this year had been a scientific success with the greatest number of abstracts submitted so far - 852. There were also 688 poster presentations.

He was followed by Professor Nazif Bağriaçık – President of the Turkish Association of Obesity (TASO) - who outlined the problems facing Turkey with regards obesity.

Then Dr Hans Hauner from Germany– Chair of the EASO Awards Committee - introduced this year's Young Investigator Awards for outstanding achievements. This year there were three awards – one for basic science, and two for clinical science, but none for public health due to a lack of suitable candidates.

The EASO Young Investigator Award for Basic Science went to Miriam Granado García, who gave an impressive presentation on her work studying the effect of postnatal leptin levels in mice, suggesting it could be a key factor in the development of metabolic disorders in adults. Miriam has recently accepted the role of Assistant Professor of Physiology in the Department of Physiology of the Faculty of Medicine at the Autonoma University of Madrid.

The first EASO Young Investigator Award for Clinical Research went to Isabelle Aeberli from Switzerland. She gave a fascinating presentation on her work looking at the double burden of obesity and iron deficiency. Isabelle started work as a postdoctoral fellow at the University Hospital Zurich and ETH Zurich in 2008. She was recently awarded a fellowship by the Swiss Science Foundation for a two-year-stay abroad and is currently working at the St. John's Research Institute in Bangalore, India.

The second EASO Young Investigator Award, also for clinical research, went to Gijs Goossens from the Netherlands. Dr Goossens gave an impressive presentation on his work on the role of the renin-angiotensin system and adipose tissue dysfunction in relation to Type 2 Diabetes. He currently holds the position of Assistant Professor at the Department of Human Biology at Maastricht University Medical Centre.

Professor Nick Finer then made a brief announcement about the summer school being held this year in Cambridge for obesity researchers and specialists. The course is organised by the SCOPE project – the Specialist Certification of Obesity Professional Education (online and national programmes for obesity management in Europe)- which is run by the International Association for the Study of Obesity (IASO). For more information visit [www.scope-online.org/](http://www.scope-online.org/).

The evening was concluded by a lively performance by the Shaman Dance Theatre blending Turkish folk and contemporary dance, followed by a reception for the congress.

**Thursday May 26<sup>th</sup> 2011**

**Plenary Lecture: What is Obesity Prevention Anyway?**

The star speaker of this lecture was Professor Philip James, who established the International Obesity Taskforce in 1996 and is currently an honorary member of the London School of Hygiene and Tropical Medicine and President of the International Association for the Study of Obesity (IASO).

Prof James gave an engaging and thought-provoking lecture in which he tried to unravel some of the confusion surrounding obesity prevention, pointing out that there are different definitions of prevention and nobody is really sure at what point they should be intervening. He said that one problem was that obesity was eliminated from the medical map for many decades because it was seen as simply a risk factor.

Therefore obesity needs to be recognised in its own right if early prevention is to take place. He pointed out that countries are now having to intervene to prevent diabetes and obesity is slowly coming into the picture. He also raised the idea that it would be more cost-effective and beneficial to treat those who are overweight rather than obese as you save more lives by treating the average than by treating the high risk.

And he looked at the economic burden on society and how to we should be judging the cost of treatment – whether on an individual or a national basis. During his lecture Professor James also highlighted recent work by the OECD, which looked at the causes of obesity. He said the health economists did not even mention physical activity as a cause- instead they blamed mass production of food, falling food prices, convenient foods such as fast foods and sophisticated marketing techniques.

He said the OECD also highlighted the powerful effects of the mass media, food advertising regulation and food labelling. Professor James added that analysis shows that you have got to have government intervention as well as medical intervention to help tackle obesity. This strategy seems to have paid off in France where recent government measures restricting the availability, price and marketing of food have had an impact on their obesity problem, he said.

Professor James concluded by saying he thinks that the obesity world is coming of age and that now is a time of optimism. He added that the challenge for everyone is to come together to transform the medical treatment of patients and the thinking of governments. During a question and answer session, Professor James was asked where he thinks current trends with obesity are heading. He replied that he believes obesity is going to escalate until it reaches crisis point and gets so bad that it will require Prime Ministerial intervention.

Prime Ministers rarely act unless there is a political emergency and the evidence is overwhelming, he added. He also highlighted the “astonishing level of ignorance and prejudice” among medical leaders and added that there is much work to be done on home ground before changing the minds of politicians.

## **Association Session: EASD - Obesity and Diabetes**

To kick-start this session, Oluf Pedersen from Denmark presented a talk entitled 'The (meta) genomics of Type 2 Diabetes, focussing both on the Human microbiome project as well as results from human genomics'.

Professor Pedersen, from the Centre for Basic Metabolic Research at the University of Copenhagen in Denmark, discussed the impact of our two genomes - the human genome and the human microbial metagenome - on metabolic health.

The detailed talk discussed the gene variants associated with Type 2 Diabetes and obesity. Prof Pedersen said that research is still in an early stage and it is still not clear how these gene variants are involved in these conditions. He said more research and more refined tools are needed. He also talked about gut microflora, the influence from the environment and host genetics, and the possible impact on health and obesity.

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Dr Jürgen Eckel from the German Diabetes Centre in Düsseldorf then gave an interesting talk entitled 'Adipose-muscle cross talk in inflammation and insulin resistance'. He highlighted the key role that adipose tissue plays in releasing adipokines and how this can lead to insulin resistance, discussing the role of certain genes such as DPP4.

He said that DPP4 is a novel biomarker and a link between obesity and metabolic syndrome. He added that in the future it could be extremely helpful in helping to identify potential individuals with a higher risk of metabolic syndrome. He also presented data looking at the effect of exercise on muscle, the molecular processes involved and the interaction between fat and muscle.

For more information go to [www.adapt-eu.net](http://www.adapt-eu.net)

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Peter Arner from the Karolinska University Hospital in Stockholm, Sweden, then spoke about 'Dysfunction in Human Adipose Tissue and Type 2 Diabetes Risk'. This talk also discussed in depth the role of adipose tissue and the release of adipokines and fatty acids. Professor Arner showed slides looking at the impact of different-sized fat cells and discussed data showing that subcutaneous fat is associated with decreased insulin sensitivity and is a risk factor for future Type 2 Diabetes.

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## **Review Session: Diet and Lifestyles**

To start this session, Ellen Govers, from the Netherlands, presented the results from a nationwide two-year observational retrospective cohort study looking at the treatment of obesity by dietitians in primary care.

In the Netherlands dietitians treat many patients, the majority of whom are mainly referred by family doctors. The aim of the study was to assess the effectiveness of this treatment by dietitians. For the study, researchers collected data from 67,000 patients – 70 per cent of whom were female, with a wide age range from 19-65+ and with a mean BMI of 33.5.

Ms Govers said that many had co-morbidities such as diabetes, high blood pressure, sleep apnoea and 10 per cent had a BMI over 40. The researchers found that within 6 months there was a high drop out rate from the programme from treatment programmes. Of those who continued, 31 per cent achieved more than 5 per cent weight loss; 38 per cent had a 1-5 per cent weight loss, 19.6 per cent remained stable while 11 per cent had weight gain.

Researchers noticed that experienced dietitians had better results and inexperienced ones had higher drop out rates. They also noted that counselling techniques, NLP and motivational techniques were all very successful and had a strong relationship with the results. Ms Govers highlighted the high drop out rates - within 6 months half of patients disappeared, citing the main reason as no weight loss. She concluded that dietitians need to tell patients right from the start that treatment can take up to a year and that they need to develop realistic expectations.

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Dr Graham Finlayson from the University of Leeds in the UK then gave a detailed and interesting presentation entitled 'Hedonic liking and wanting for food modulate homeostatic control over meal size in obese adults'.

This focussed on the regulation of food intake and signals that influence behaviours such as food choice, meal size and meal frequency. Dr Finlayson explained how his team's investigative approach is to try to dissect behaviours and processes that underpin overconsumption leading to weight gain and obesity.

They are also trying to understand the processes controlling food intake and choice by looking at the influence of physical activity. He outlined the details of a three - month exercise intervention programme involving 41 obese and overweight participants. The researchers measured appetite, and levels of wanting and liking food, and asked participants to rate different kinds of food.

They found exercise increases levels of fat-free meals and decreases levels of fat mass. They also found that implicit processes can be altered by regular exercise, with participants showing a reduction in liking for high fat sweet categories of food and an implicit wanting for low fat foods.

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Anita Belza, Assistant Professor in the Department of Human Nutrition at the University of Copenhagen in Denmark, then gave a very detailed talk on the 'Protein dose-response effect on GLP-1, PYY and appetite in male subjects'.

This presentation looked at appetite-regulating hormones, with Dr Belza noting that research is still at an early stage. Dr Belza showed data from a study looking at appetite sensations and intake and the response of appetite-regulating hormones. She said the study suggests there is a dose-dependent effect of protein on satiety and that GLP-1 and PYY may partly be responsible for the appetite-suppressant effect of meat protein.

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Pia Christensen from The Parker Institute at Frederiksberg Hospital in Denmark then gave an informative presentation entitled: 'A weight loss formula diet improved vitamin D status in obese, older individuals: a cohort study exploring safety in a randomized controlled trial'. For this trial, researchers investigated the change of micronutrient status and change of body composition after a dietary weight loss programme. They recruited patients with a BMI over 30, who were aged over 50 and who had osteoarthritis in at least one knee.

They also measured levels of vitamin D and bone mineral content and density, finding that 48 per cent of participants had low levels of vitamin D before the start of the trial. For 8 weeks the participants followed a formula diet where they were given a 415 or 810kcal each day. For the following 8 weeks they were given a 1200kcal diet using two formula products a day. They were also given a daily intake of vitamin D and calcium throughout the programme. At the end 175 participants completed the 16-week programme. They achieved weight loss of almost 14 per cent and an increase of vitamin D of almost 30 per cent.

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Professor Arne Astrup from the University of Copenhagen in Denmark then presented in place of a colleague from Bulgaria the results from the DiOGenes project – a pan-European project targeting obesity from a dietary perspective. The aim of the study was to try to understand and predict weight loss maintenance in obese patients and see if the initial weight loss had an influence on the outcome six months later.

Professor Astrup said obese patients were recruited for the study and were given a low-calorie diet of 800-880-kcal a day for 8 weeks. Those who lost more than 8 per cent of weight were then randomized into different ad libitum diets with different protein levels. Some 800 patients completed the 8-week low-calorie diet achieving substantial weight loss and losing together about 8,000kg, Professor Astrup said. They were then randomized into 5 different diets.

Results at 8 weeks showed those who had the smallest weight loss tended to regain later on whereas those with the greatest weight loss continued to lose weight. Prof Astrup said this appeared to confirm what has been seen in many other smaller studies, that the greater the initial weight loss, the greater the long-term success. He added that this goes against what many dietitians are telling patients – that you should lose weight slowly and gradually.

He concluded that initial weight loss was an independent predictor of weight loss maintenance six months later. The researchers found males did better initially for weight loss but women did better in weight maintenance and had a lower drop out rate. They also found those with smallest weight loss at the start were more likely to drop out.

For more information visit [www.diogenes-eu.org](http://www.diogenes-eu.org).

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Finally, Kiran Nanchahal, Senior Lecturer in Epidemiology and Medical Statistics at the London School of Hygiene and Tropical Medicine presented results from the Camden Weight Loss (CAMWEL) randomised controlled trial in the UK.

The aim of the trial, which recruited 381 overweight and obese patients in the Camden area of North London, was to assess the effectiveness of a longer-term adviser-led lifestyle support programme. The trial had an intervention structure, whereby the patients were given 14 one-to-one half hour sessions over 12 months. These were held with six advisers who were recruited to carry out the interventions.

The researchers evaluated changes in weight, waist circumference, body fat and 5 per cent weight loss, following the patients up at 6 and 12 months. The results revealed a loss of body fat, decreased waist circumference and substantial proportion of the patients lost 5 per cent of their body weight. Dr Nanchahal said that feedback revealed that patients really liked the regular meetings and the non-judgmental nature of the advice. They also liked the educational element about portion sizes.

In conclusion she said that medically important levels of weight loss can be achieved using this kind of intervention.

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### **Industry Supported Satellite Session: Nestlé. Satiety, portion size and food choices. From perception to reality**

Portion sizes and food choices among children and adolescents (S. de Henauw, Belgium)

- ✓ Food photographs are widely used as instruments to estimate portion sizes of consumed foods. Several food atlases are available, all developed to be used in a specific context and for a given study population.
- ✓ Frequently, food photographs are adopted for use in other studies with a different context or another study population. In the De Henauw's study, errors in portion size estimation of bread, margarine on bread and beverages by two-dimensional models used in the context of a Belgian food consumption survey are investigated.
- ✓ A sample of 111 men and women were invited for breakfast; two test groups were created. At the group level, large overestimation of margarine, acceptable underestimation of bread and only small estimation errors for beverages were found.

- ✓ Women tended to have smaller estimation errors for bread and margarine compared with men, while the opposite was found for beverages. Individual estimation errors were large for all foods.
  - ✓ The results suggest that the use of food photographs for portion size estimation of bread and beverages is acceptable for use in nutrition surveys. For photographs of margarine on bread, further validation using smaller amounts corresponding to actual consumption is recommended.
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#### Application of the 'Expected Satiety' tool to better understand everyday portion size selection (CG Forde, Switzerland)

- ✓ Unlike energy expenditure, energy intake occurs during discrete events: snacks and meals.
  - ✓ The prevailing view is that meal size is governed by physiological and psychological events that promote satiation towards the end of a meal.
  - ✓ Recently, techniques have been developed that enable us to quantify 'expected satiation' and 'expected satiety' (respectively, the fullness and the respite from hunger that foods are expected to confer). When compared on a kJ-for-kJ basis, these expectations differ markedly across foods. Moreover, in self-selected meals, these measures are remarkably good predictors of the energy content of food that ends up on our plate, even more important than palatability.
  - ✓ Expected satiation and expected satiety are influenced by the physical characteristics of a food (e.g. perceived volume). However, they are also learned.
  - ✓ Indeed, there is now mounting evidence for 'expected-satiation drift', a general tendency for a food to have higher expected satiation as it increases in familiarity.
  - ✓ Together, these findings show that important elements of control (discrimination and learning/adaptation) are clearly evident in plans around portion size. Since most meals are eaten in their entirety, understanding the nature of these controls should be given high priority.
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#### American-French comparisons in food attitudes and the food environment (P Rozin, US)

- ✓ Humans are biologically adapted to their ancestral food environment in which foods were dispersed and energy expenditure was required to obtain them. The modern developed world has a surplus of very accessible, inexpensive food.
- ✓ In terms of education (eg, in nutrition and risk-benefit thinking) and environment design, modern cultures have not kept pace with changes in the food world. Overweight and worrying about food result from this mismatch between human biological predispositions and the current food environment.

- ✓ The French have coped with this mismatch better than Americans. Although at least as healthy as Americans, they focus more on the experience of eating and less on the health effects of eating. They spend more time eating, but they eat less, partly because of smaller portion sizes.
- ✓ French traditions of moderation (versus American abundance), focus on quality (versus quantity), and emphasis on the joys of the moment (rather than making life comfortable and easy) support a healthier lifestyle. The French physical environment encourages slow, moderate social eating, minimal snacking, and more physical activity in daily life.

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#### Translating research on portion size into policy and practice (S Jebb, UK)

- ✓ There has been a lot of great work around product reformulation but the area in which we have seen much less progress, is around portion size.
- ✓ If we constrain portion size, even by just 5%, we not only make a cut in calorie intake but we cut saturated fat, we cut sugar and we cut salt all at the same time, all in one go.
- ✓ For some product categories Jebb would argue that the emphasis should be on portion size rather than perhaps on reformulation. That's both for technical reasons and also for quality reasons, some foods taste better with fat and sugar but perhaps consumers all have to learn that to eat a little bit less of them.
- ✓ Experimental evidence on portion size, although controlled, is convincing. Larger portions encourage over consumption. When you put more on the plate people eat more and it is an incredibly reproducible and consistent phenomenon. More strikingly, people don't report feeling any more full and at the next meal they don't decrease their intake to compensate.
- ✓ Evidence shows that by reducing energy density, essentially calories per bite which you can achieve by cutting fat, cutting sugar, boosting fruit and vegetables, actually you get an additive effect with portion size. So you can get additional benefits if you do both but portion size is very, very important.
- ✓ Innovation in the industry around portion size, ie. 'treat sized' ranges. Jebb is concerned that it increases frequency.
- ✓ We need to recognise how the food environment shapes the choices that people are making and respond accordingly and the influence of marketing and advertising to children and the need for balanced advertising.
- ✓ No one approach that is going to solve this problem overnight. We need a combination of strategies and they need to be coherent and fit together.
- ✓ We need to work on the frequency with which people are eating, we need to work on the amount, the portion size that people are eating and we need to work on the type of food that people are consuming.

## **Lunchtime Workshop: How to Motivate the Patient to Change**

This energetic workshop was held by Dr Pascal Gache and Professor Alain Golay from the University Hospital in Geneva, Switzerland. It centred round the idea of using empowerment and negotiation techniques to help motivate patients.

Dr Gache, an addiction specialist and trainer in motivational interviewing, said you cannot prescribe physical activity and diet to a patient – you have to motivate patients to change their behaviour themselves. He explained the four principles of motivational interviewing – 1) express empathy 2) develop discrepancy 3) roll with resistance and 4) support self-efficacy.

This was displayed in a role-play using the scenario of a ‘motivational’ doctor listening to a patient who wants to lose weight. In a group discussion, the workshop audience said they could feel the doctor’s empathy. The audience also felt the doctor really focused on the patient, guiding the dialogue so she came up with her own answers and that he reinforced her motivation.

They then discussed the concept of ‘change-talk’ – how to speak in a way that fosters change (the opposite is sustain talk).

For more information visit: [www.motivationalinterview.org](http://www.motivationalinterview.org)

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## **Review Session: Psycho-Social and Cultural Aspects**

Obesity, affluence and inequality (S Ulijaszek, UK)

- ✓ Among affluent countries, those with market-liberal welfare regimes (which are also English-speaking) tend to have the highest prevalence of obesity.
- ✓ The impact of cheap, accessible high-energy food is often invoked in explanation. An alternative approach is that overeating is a response to stress, and that competition, uncertainty and inequality make market-liberal societies more stressful.
- ✓ The study pools 96 body-weight surveys from 11 countries c. 1994-2004. The fast-food ‘shock’ impact is found to work most strongly in market liberal countries. Economic insecurity, measured in several different ways, was almost twice as powerful, while the impact of inequality was weak, and went in the opposite direction.

Understanding the Relationship between Obesity & Educational Achievement (T I A Sørensen, Denmark)

- ✓ Several studies have examined the potential associations between various social factors, such as school performance, educational attainment, occupation, and income and BMI or weight changes. The results have been inconsistent.
- ✓ However, cross-sectional studies conducted on Danish draftees showed a clear inverse association between BMI above the median BMI and both intelligence test score and educational level.
- ✓ Subjects were selected among men appearing at Danish draft boards. The men were divided into two groups: A group with juvenile-onset obesity,

including all men with a BMI of greater than 31; and a non-obese group randomly selected as a 1% sample of the study population. The obese group and 50% of the non-obese group were invited to participate in follow-up studies between 1982 and 1984 and between 1992 and 1994. Among 907 men with juvenile-onset obesity and 883 non-obese men, age, region of examination, intelligence test score were analysed.

- ✓ The results showed that education and intelligence, analyzed separately, were inversely related to BMI changes in both groups and to the development of obesity in the nonobese group. When adjusted for education, the association between intelligence score and BMI changes and development of obesity vanished, whereas the inverse relationship for education persisted only for BMI changes. Intelligence score was not associated with the persistence of obesity in the obese group, whereas inverse relationships were found for education.

Tackling childhood obesity through the education system: opportunities and ethical challenges (K Voigt, UK)

- ✓ The education system has become an important site for childhood obesity interventions e.g. through improving food environments, integrating nutrition education into curriculum and increasing physical activity.
- ✓ School based intervention can contribute to helping prevent/treating of obesity.
- ✓ However, health promotion is not always the priority of the school's curriculum agenda, ie life skills.
- ✓ Autonomy (schools trying to teach children to make their own choices), sometimes by restricting these choices schools counter the objective of enable these children to make independent choices later on in life.
- ✓ Voigt's study looks at alternative initiatives (to limiting choice) which can be implemented in parallel with interventions which still equip children with life skills in order to make independent choices.

Seeds of doubt in the media landscape: a backlash against obesity prevention? (C Bonfiglioli, Australia)

- ✓ Mass media is identified as a key factor in leading to obesity. However, the media is now shifting towards headlines suggesting that there is no obesity epidemic.
- ✓ Some are going as far to say that obesity is not a health hazard, people can be overweight and have unhealthy eating and lifestyle habits.
- ✓ The study conducted analysed commentary and discourse in the UK and Australia (in 2005 and later 2009) and found that the original focus was on the scale of the obesity problem but then shifted in 2009 to showing that obesity is not a determinant and physical activity can solve obesity-related issues.

## **Industry Supported Satellite Session: Weight Watchers. How to Help People with Obesity Help Themselves: Different People – Common Approach**

This evening session was opened by Dr João Breda from the WHO Regional Office for Europe, who gave a talk entitled 'Obesity in Europe: European Plans to Address Obesity'. Repeating much of what was said during his plenary lecture on Wednesday evening, Dr Breda gave a summary of WHO's work in Europe and the progress made since the European Charter on Counteracting Obesity in 2006.

He highlighted the WHO's important monitoring and surveillance systems, including the COSI childhood obesity initiative, and spoke about the new NOPA (Nutrition, Obesity and Physical Activity) European database.

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Melanie Stubbing, President, International of Weight Watchers International Inc., then gave a thought-provoking and informative talk entitled 'What We Know Today – Weight Watchers experience in Europe'.

The talk centred on the far-reaching work of Weight Watchers in over 30 countries around the world and how the organisation is working to use its expertise to help combat the global obesity problem.

Ms Stubbing started off by saying that the weight loss company is run by a team of very passionate people, who are eager to share their experience and help people lose weight. She said that despite the cultural differences between many countries, there are many similarities in terms of lifestyle factors that lead to weight gain.

And this is why Weight Watchers is so optimistic about being able to help as they have built up a credible body of published evidence as to what works when it comes to weight loss. Ms Stubbing then outlined the core principles of Weight Watchers – a programme, she said, that is based on science and an ethical approach to losing weight.

This programme is based on four pillars – helping people take a more balanced and healthy approach to their eating; helping people take regular, attainable exercise and activity on a regular basis; focussing on small changes of habit-forming behaviours that can become sustainable lifestyle changes and help people make long-term adjustments and providing group support and the regular weekly weigh-in, facilitated by trained leaders who have all lost weight on the programme themselves.

Ms Stubbing said that independent studies have shown that group session attendances are strongly correlated with weight loss success and this has proven to be the case with Weight Watchers - the more meetings a person attends the more weight they lose.

She then spoke about different countries and how Weight Watchers has had to fine-tune its approach to each market adjusting to cultural difference whilst maintaining their common, proven methodology. She highlighted cultural and societal

differences within certain countries in Europe and then gave a fascinating insight into the company's recent work in China.

All of this experience has helped Weight Watchers build up a consistent body of evidence, Ms Stubbing said.

A recent randomised control trial was conducted across three countries - Australia, Germany and the UK - comparing 12 months of Weight Watchers referral to 12 months of standard care by health professionals in primary care. Ms Stubbing said the trial showed that at 12 months, weight loss was significantly greater with Weight Watchers than with standard care: more than double in fact.

Two other independent studies, which have looked at how Weight Watchers is working with the UK national healthcare service to deliver weight loss interventions for their patients, corroborate the results from this clinical trial: –These studies demonstrated that Weight Watchers' short 12 week intervention led to medically significant weight loss from baseline to programme end and, at the 12 month follow up, patients continued to sustain a significant weight loss; providing real world evidence that this is a highly effective complement to standard primary care.

Ms Stubbing added that successful results have also been demonstrated though the published evidence base of Weight Watchers in Spain, Germany, France, as well as in China and Australia. Summarising, she said that Weight Watchers methodology has a growing pool of scientific evidence demonstrating the role that they can play to tackle the obesity epidemic across different cultures and populations, delivering medically significant weight loss in a safe, cost effective, truly scalable and sustainable manner for both the public and healthcare agencies.

She concluded by saying that Weight Watchers is very committed to building its evidence and maintaining the quality of its approach, whilst playing a role working together with the large breadth of needed solutions. She added that the company is also very keen to use its unique consumer knowledge to help play a part in solving the obesity crisis.

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The final speaker of the session was Professor Gema Frühbeck who gave a stimulating talk entitled 'Can we undo our fat future: yes we can! How to translate what we know into actions that tackle the obesity epidemic'.

Professor Frühbeck is Senior Consultant of the Department of Endocrinology and Nutrition at the Clinica Universidad de Navarra in Pamplona, Spain and Head of the Metabolic Research Laboratory of the University of Navarra.

She started off by trying to unpick some of the problems that are contributing to the obesity epidemic. The first one she highlighted was the lack of energy expenditure in obese patients. She pointed out how even very small changes in energy balance can translate into increases in body weight and body fat – with an extra 125kcal a day translating into almost 6.5kg of body fat in a year.

But she said that decreasing energy consumption by only 50kcal a day can help to shift the BMI curve. She then highlighted how decreasing portion sizes could help tackle the problem. She added that a less obesogenic environment needed to be created as well.

Speaking about obese patients, Professor Frühbeck said that many of them argue that they can't do anything about their weight because it's "down to their genes". But she knocked this argument on the head by saying that the contribution from even the most important genes identified with obesity is actually very small.

She also highlighted what she calls the "futility argument" – when medical colleagues say they didn't refer a patient because "there is nothing that can be done for them". Professor Frühbeck argued that from an ethical point of view obesity should be treated like cancer and doctors should continue to treat patients the best they can.

She concluded by saying that modest weight loss can bring good health benefits. But she said there were many challenges ahead. She argued that health professionals need to be better at diagnosing and treating patients. And she said more long-term strategies and more specific guidelines to tackle obesity were needed. As for patients, she said they should be told to stick to realistic weight- loss goals.

**Friday May 27<sup>th</sup> 2011**

**Oral Session: Parents, parenting and childhood obesity**

The parent vs the state: responsibility in childhood obesity (S Nicholls, UK)

- ✓ Because parents provide a child's contextual environment, they should be considered key players in interventions aimed at preventing or treating weight-related problems.
  - ✓ Parenting style and feeding style are crucial factors in fostering healthy lifestyle and awareness of internal hunger and satiety cues and de-emphasising thinness.
  - ✓ Responsibility may be considered in three distinct ways: causal responsibility, moral responsibility, and blameworthiness
  - ✓ Nicholls' paper explores issue of parental responsibility and suggests that the attribution of responsibility is far more complex than may at first appear and that whilst parents are causally responsible, in many cases the moral responsibility and attribution of blame must fall elsewhere.
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New insights in parental involvement in school based obesity prevention programmes in Europe: results from the energy systematic reviews and focus groups (L Maes)

- ✓ Earlier studies have indicated that school and family environments are key determinants of energy-balance behaviors in schoolchildren.
  - ✓ Schools are an important setting for health promotion, but school-based interventions mostly fail to target and involve the family environment.
  - ✓ The overall aim of the "EuropeaN Energy balance Research to prevent excessive weight Gain among Youth" (ENERGY) project is to promote the adoption or continuation of health behaviors that contribute to a healthy energy balance among school-aged children involving school-based and family-involved intervention programmes across Europe.
  - ✓ The European Commission's Directorate General for Research funded the ENERGY-project, within its 7<sup>th</sup> framework program (start date February 1<sup>st</sup> 2009).
  - ✓ The impact of parental involvement in school based intervention was assessed through two systematic reviews, however neither revealed conclusive evidence.
  - ✓ Parents considered physical activity of the child as a shared responsibility of the schools and parents, nutrition was considered the main responsibility of parents and prevention of sedentary behaviours was as the sole parents responsibility.
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Training community practitioners to work more effectively with parents to prevent childhood obesity (MC Rudolf, UK)

- ✓ Despite epidemic numbers of obese and overweight pre-school children, professionals report a lack of confidence and self-efficacy in working with parents around lifestyle change.
- ✓ HENRY--Health Exercise Nutrition for the Really Young--trains health and community practitioners to work more sensitively and effectively with parents of babies and pre-school children around obesity and lifestyle concerns.
- ✓ Underpinned by the Family Partnership Model, reflective practice and solution-focused techniques, it offers face-to-face training and e-learning.
- ✓ Twelve Children's Centres in Oxfordshire took part in the pilot involving 137 staff. Questionnaires were administered at the end of training courses. Self-reported confidence ratings were obtained before and after training. Postal questionnaires were sent to Centre managers 2-6 months later to ascertain long-term effects.
- ✓ One hundred and thirty-one staff (96%) completed the training course and valued it as a way of enhancing skills and knowledge.
- ✓ An influence on personal as well as professional lives was apparent. Long-term follow-up indicated on-going impact attributed to HENRY on both Centres and staff.
- ✓ All 535 e-learners successfully completed: 98% would recommend HENRY; 94% thought it enhanced their skills as well as knowledge.

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### **Special Session: EASO Young Investigators United**

This session began with the announcement of the new members of the YIU board. They are Gijs Goossens, from the Netherlands, who will represent the Northern Region; Michal Holecki, from Poland, who will represent the Middle Region and Teodora Handjieva-Darlenska, from Bulgaria, and Amaia Rodriguez, from Spain, who will represent the Southern Region. The group have their own website: [www.younginvestigatorsunited.org](http://www.younginvestigatorsunited.org) And their own Facebook group page: EASO Young Investigators United.

The session then heard presentations from the two nominees for the YUI Thesis Award. The first was given by Dr Erlend Aasheim from Norway, who is currently a Clinical Fellow in Obesity Medicine at the Imperial Weight Centre at Charing Cross Hospital in London. Dr Aasheim's thesis related to vitamin deficiency in obese patients following bariatric surgery. Among his conclusions, he found that vitamin deficiencies can cause severe complications after bariatric surgery. He also found that while duodenal switch surgery leads to greater weight loss, it can also lead to more nutritional problems than gastric bypass surgery.

Jennifer Jager, from INSERM (Institut National de la Santé and de la Recherche Médicale) in Nice, France, then presented her thesis on the Implication of the MAP

kinases ERK in adipose tissue inflammation and insulin resistance in obesity. This was a highly technical study that won praise from audience members and the judges, who decided that Jennifer should be awarded the prize. She will receive a certificate and a cash prize for winning the prestigious award.

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Kirsi Pietiläinen, from the Obesity Research Unit at Helsinki University Central Hospital in Finland, then took the stand. Her talk was entitled ‘Obesomics from a senior perspective: Uniting investigations of genome in the lab and environment in the pub!’

Dr Pietiläinen, one of the founding members of the EASO Young Investigators United, had been invited to give a “motivational talk” to the new generation of scientists and chose to talk about the things that have motivated her throughout her career – including people and subject areas.

She gave a summary of her illustrious career so far, including fascinating work looking at obesity in twins and then urged the young scientists to all go to the pub!

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Another world-leader in his field, Professor Keith Frayn from the Nuffield Department of Clinical Medicine at the University of Oxford was also invited to talk, and he spoke about ‘Obesity and Human Adipose Tissue Metabolism’.

The Professor of Human Metabolism gave a summary of his trailblazing work carried out over the years, touching on areas such as blood flow through adipose tissue, fatty acid metabolism, regulation of fat lipidization, and the pathway of fat storage.

**Saturday May 28<sup>th</sup> 2011**

**Plenary Lecture: Controversies in Obesity: Should Metabolically Normal Obese Patients be Treated?**

This lecture took the form of a debate. Advocating the pro arguments was Professor Constantine Tsigos from the Athens University Medical School in Greece. He came up against Professor Nick Finan from the University College London Hospital Centre for Weight Loss, Metabolic and Endocrine Surgery.

Professor Tsigos started off by raising the question of what it actually means to be “metabolically normal obese” – as many studies use different criteria to define this. As a result, the prevalence of metabolically normal obesity varies from 6 to 40 per cent. However, despite this variation, he said that studies show that metabolically normal people have an increased risk of cardiovascular disease and other diseases.

They also have an increased risk of developing Type 2 Diabetes and studies show that the metabolically normal obese have the same risk of dying as the metabolically abnormal obese. He said some people have argued against treating the metabolically normal obese after a study showed that diet-intervention only in this group led to a reduction in insulin sensitivity compared to those who were insulin resistant. But he argued that this study was small and has never been repeated. He said another study has shown that intervention using diet, exercise, or both, can significantly increase insulin sensitivity in the metabolically normal obese.

Another study looking into gastric banding showed that after six months even those who were metabolically healthy had a significant increase in insulin sensitivity – leading to improvement. Professor Tsigos said it was important to intervene because obesity precedes Metabolic Syndrome. And obesity not only increases metabolic complications, it also significantly increases the risk of many types of cancer, mood and anxiety disorders, reproductive disorders, liver cases and musculoskeletal problems.

To conclude, Professor Tsigos said that metabolically normal obese patients exist, but in a small majority. But the majority seem to go on and develop the hallmarks of Metabolic Syndrome later in life. He added there are numerous benefits of weight loss and lifestyle intervention appears to bring about benefits in this group.

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Professor Nick Finan started his arguments by saying that 25 per cent of the population are obese and that doctors are unable to provide medical care for most of these people.

He said patients who are metabolically normal/healthy are not ill and do not have a disease and it was challenge enough to treat the people who are obese and metabolically unhealthy. He then pointed out data from long-term epidemiological studies that have shown that losing weight can be unbeneficial.

He said studies have shown weight loss can lead to an increase in osteoporotic fractures, loss of muscle tissue, nutritional deficiencies and numerous attempts at weight loss may lead to abnormal eating behaviours such as binge eating disorders.

He then argued that the problem with intervening is that there are very few long-term studies of therapeutic interventions. He said that the economic case for not treating the metabolically normal obese was “compelling”.

He said studies have shown that cardiovascular event rates in metabolically healthy overweight or obese patients are low. And they are very small compared to those metabolically unhealthy. With regards weight loss drugs, he said the only point at which Orlistat becomes cost-effective is when patients have co-morbidities.

Therefore he argued that these are the people that doctors should be focussing on, not those who are metabolically normal obese. In conclusion he said that the advice for the healthy obese should be exactly that - advice, but not treatment. And the advice would be to follow a good diet, exercise and learn to relax. He added that doctors should focus their efforts on those who will benefit the most.

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### **Oral Session: Interventional Studies in Adult Obesity**

During this session, Amanda Lewis, from the University of Birmingham, presented results from the Lighten Up trial: A randomised control trial to compare a range of commercial or primary care-led weight reduction programmes with a minimal intervention control for weight loss in obesity.

The trial related to the South Birmingham area of England where data from 2008 showed over 31,000 adults had a BMI over 30. For this study, 740 obese patients from this area were referred to one of a number of intervention groups.

The 12 week interventions were; Weight Watchers, Slimming World, Rosemary Conley, a group based dietetic led programme, general practice one to one counselling, pharmacy led one to one counselling. The comparator group was provided 12 weeks of leisure centre vouchers.

Ms Lewis revealed that compared to baseline at three months, all groups achieved significant weight loss, but that only the commercial group-based programme achieved significantly greater weight loss than the comparator (minimal intervention group).

At one year only Weight Watchers achieved significantly greater sustained weight loss versus the comparator arm. Lewis concluded that group-based weight management programmes for short periods can result in clinically significant amounts of weight loss at one year.

She added that primary care interventions were found to be the most expensive but also the least effective.

## **Oral Session: Policy and the Environment**

During this session, Professor Boyd Swinburn from Deakin University in Australia, gave a talk entitled 'Overarching policy approaches for obesity prevention in Australia: at the State/Territory Level of government'. This piece of research targeted the middle level of government in Australia and aimed to delve into the mindset of policymakers.

It involved 45 in-depth interviews with senior officials from government departments, statutory departments and a handful of NGOs, asking them about overarching policy approaches and about perceptions and barriers in relation to them. Professor Swinburn said that overall the results indicated support for overarching policies.

The researchers concluded that overarching interventions should include: leadership and governance, healthy public policy, resourcing intelligence systems i.e. monitoring, policy implementation support systems, workforce capacity, partnerships, organisational structures, networks and communications.

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## **Review Session: Policy and Economics**

This session was opened by Professor Elif Sezginer Dagli who gave a fascinating talk entitled 'Prevention policies: lessons from tobacco control'. Professor Dagli has been calling for tighter tobacco control for more than two decades and campaigned vigorously for tighter smoking controls in her native Turkey. She is currently chair of the National Coalition on Tobacco or Health.

She spoke about the underhand tactics employed by the tobacco industry over the decades and how she believes the food industry is going down the same road. She highlighted how tobacco companies came together to deceive the public about health dangers and avoid public health policies that could damage sales.

She said the tobacco industry has done lots to deny health consequences, damage the credibility of opponents, direct advertising at the youth and has tried to defeat attempts at regulation and destroy legislation.

And she warned that food companies are already employing similar tactics – for example, blaming personal responsibility as the cause of the nation's unhealthy diet, raising fears about governments usurping personal freedom, vilifying critics and creating 'junk science' to back themselves up.

Professor Dagli concluded by saying an orchestrated movement is needed to help tackle the food industry. For tobacco, it took the WHO Framework on Tobacco Control, where scores of countries signed up and implemented controls, for major action to take place. She added that the same thing needs to happen against the food industry, with all the world taking action collectively.

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Martin Neovius, from the Karolinska Institute in Sweden then gave a clear and informative talk entitled the 'Health Economics of Obesity from a European Perspective'. Professor Neovius broke down into detail why there is a need for economic analysis in obesity, how a cost-effective analysis is carried out and then gave cost-effective results for anti-obesity drugs and obesity surgery. He presented data from Sweden showing a five-fold rise in obesity and a ten-fold increase in morbid obesity over three decades.

He then showed data from Sweden linking obesity with loss of productivity and disability pensions – proving the obesity is a costly problem. He then discussed how cost analyses are carried out to decide whether an intervention is worth doing, explaining the Incremental Cost Effective Ratio (ICER). He highlighted how many cost-effective calculations are based on models using short-term data, which are then turned into “heroic” extrapolations.

Ideally, he said, the cost-effectiveness of a drug or treatment should be assessed over a long period of time, based on observed data. But most cost-analyses for anti-obesity drugs have been done using short-term data. And very few have been for bariatric surgery done based on observed data.

Professor Neovius then looked at all published trials for anti-obesity drug and highlighted how most have been carried out by drug manufacturers. In terms of obesity surgery he said a lot of cost-effective analyses have been carried out, with most claiming that it is a cost-saving intervention that also improves longevity and health effects. He concluded that modelling is useful when carrying out an initial cost-effective analysis.

But he argued that long-term data on outcomes and costs should be collected to verify if these models are correct.

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Monique Potvin Kent from the University of Ottawa in Canada then gave an interesting talk about 'Internet marketing to children on food/beverage websites in two different policy environments'. She explained how in Canada, food advertising is self-regulated by the food and beverage industries and in 2010, 18 companies had signed up to the initiative. She said this meant that companies pledged to direct 50 per cent of marketing to healthy dietary choices and to include healthy marketing initiatives.

She then highlighted how in the French-speaking province of Quebec, the picture is completely different. There, advertisers are regulated by the Consumer Protection Act, which bans all commercial advertising of products exclusively to children under 13, where children comprise 15 per cent of the audience.

Ms Potvin Kent explained that the main objective of this research was to compare English and French websites in Quebec and to compare companies that had and had not signed up to self-regulation in Canada.

The research involved doing a content analysis of websites, looking at child protection features, ad alerts and also looked at marketing features, logos, slogans

and the amount of games. The results found that there was no difference between the English and French websites and there was no difference in marketing tactics.

Ms Potvin Kent said this suggested that the Consumer Protection Act did not appear to be working in Quebec and that companies were virtually ignoring it. The researchers also found that self-regulation among companies didn't appear to be working either. Ms Potvin Kent said that in terms of marketing features, games and activities, they still saw a lot of marketing aimed at children on the internet in Canada.

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Dr Marj Moodie, from Deakin University in Australia, finished the session by exploring the question: 'Are policy interventions 'good buys' as obesity prevention measures?' Dr Moodie, who is Deputy Head of Deakin Health Economics, said that investment in obesity is increasing but a lot of decisions made by policymakers are not underpinned by evidence.

Her team undertakes research on the cost and cost-effectiveness of obesity, as well as quality of life in obesity. For this presentation, she outlined the cost-effective analyses of eight interventions – some of them ACE studies done by her team, and some done by the OECD team in Paris.

The ACE approach - Assessing the Cost-Effectiveness - is a way of evaluating multi-interventions using standardised methods so researchers can assess cost-effectiveness. ACE studies she highlighted included one looking at placing a 10 per cent tax on unhealthy food and another looking at front of pack traffic light nutrition labelling – both of which found cost-savings.

Another looked at placing an excise tax on sugar-sweetened beverages, which also found cost-savings. But two other studies looking at interventions involving physical activity levels among children were not appearing to show any cost-saving benefits, she said. Dr Moodie concluded by saying that economic evidence is important and that policy interventions can represent value for money. She added that interventions targeted at adults are more effective than those targeted at children.

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### **Plenary Lecture: EASO Friedrich Wassermann Award**

At the start of this final session, Dr Hans Hauner - chair of the EASO Awards Committee - took to the stage to introduce the winner of this year's prestigious award. Dr Hauner said it had been "really easy" for the committee to elect the right person, and announced the winner as Professor Dominique Langin.

He then gave a quick account of Professor Langin's illustrious career to date, describing him as "one of the most effective and positive scientists in the field". Among his many achievements, Professor Langin won the EASO Young Investigator Award in 1996.

He is also the author and co-author of 159 original articles and 52 review articles. He is currently Professor of Nutrition and Medical Biochemistry at Toulouse University and is Co-Director of the Franco-Czech Laboratory for Clinical Research on Obesity.

After being presented with the EASO medal, Professor Langin said he was “deeply thankful” for the award. He then gave his lecture entitled ‘Metabolism of Human Adipose Tissue: Almost as Fascinating as Istanbul’.

He said he had decided not to go through all his achievements but instead to focus on some of his current areas of work looking at adipose tissue metabolism.