

### MAY 2014 NEWSLETTER

#### COOKING METHOD OF THE FOOD INFLUENCES THE METABOLIC PROFILE OF PCOS

The May newsletter is dedicated to the influence of diet content of advanced glycation end-products (AGEs) on metabolic and endocrine pattern of PCOS. AGE content of the food depends on nutrient composition (proteins, lipids, nucleic acids) but mainly on cooking temperature and duration of heat application. Professor Poli Mara Spritzer interviewed Evanthia Diamanti Kandarakis, M.D. Evy is Professor of Medicine and Endocrinology at the University of Athens, Greece and has been a member of AEPCOS Society from its foundation.

From this Newsletter issue, Jan McAllister leaves the editorial board. The editor and all editorial board thanks Jan for her contribution to the success of the Newsletter.

Helen Mason, Ph.D., is joining to the editorial Board. Helen is Professor of Reproductive Endocrinology and deputy head of Biomedical Sciences at St George's, University of London, United Kingdom.

#### VOLUME 2, ISSUE 5

MAY 31, 2014

#### In this issue:

- \* Influence of end glycation diet products on metabolic and endocrine pattern of PCOS
- \* Preliminary program of 12th Annual Meeting of AEPCOS Society

#### Editorial Board

Enrico Carmina, M.D., Palermo, Italy  
Ellen Connor, M.D., Madison, WI, USA  
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Joop Laven, M.D., Rotterdam, The Netherlands  
Helen Mason, Ph.D., London, United Kingdom  
Poli Mara Spritzer, M.D., Porto Alegre, Brazil

#### FORTHCOMING AEPCOS MEETINGS

- 12th Annual Meeting of Androgen Excess & PCOS Society, Kauai Marriott Resort Hotel and Beach Club, Kauai, Hawaii, USA, October 22-23, 2014
- Update Meeting of AEPCOS Society, San Diego, CA, USA, March 4, 2015
- 13th Annual Meeting of AEPCOS Society, Palermo, Italy, October 4-6, 2015

## 12<sup>TH</sup> AEPCOS ANNUAL MEETING, KAUAI, HAWAII, OCTOBER 22-23, 2014

The 12th Annual meeting of the AEPCOS Society will be held at Kauai Marriott Resort Hotel and Beach Club, Kalapaki Beach, Kauai, Hawaii, USA, October 22-23, 2014, immediately after the Honolulu ASRM Annual Meeting. The venue of next annual meeting is a wonderful resort that is located in the very beautiful island of Kauai. The airport of Lihue, only one mile from the resort, may be reached by a



short 20 minutes flight from Honolulu. Several airlines serve this route with more than 10 daily flights. Lihue airport may be reached also by daily direct flights leaving from main Western USA and Canada cities including Los Angeles, San Francisco, Phoenix, Seattle and Vancouver. We have negotiated a very good rate at the Kauai Marriott that will be available to all registered guests for the duration of the meeting and for the following three days. Resort fee is optional but registration includes free shuttle bus from the airport. **As a special bonus for pre-registered (before October 1, 2014) AEPCOS and ASRM members attending ASRM meeting, we will reimburse \$100 of the Honolulu-Lihue flight price (actual cost of the return ticket is \$103). AEPCOS members flying directly to Lihue from continental USA will get \$50 reimburse.**

The meeting program will include invited lectures, meet the professor sessions and oral communications

# ANNUAL MEETING PRELIMINARY PROGRAM

## DAILY SCHEDULE

### WEDNESDAY, OCTOBER 22

#### AFTERNOON

4:00—4:15 pm **WELCOME**

#### MEET THE PROFESSOR SESSIONS :

#### CLINICAL PROBLEMS IN DIAGNOSIS AND TREATMENT OF PCOS

4:15—5:15 pm

##### 1. DIAGNOSIS OF PCOS DURING ADOLESCENCE

*Ellen Connor-Madison, USA*

##### 2. TREATMENT OF INFERTILITY IN PCOS

TBA

##### 3. SONOGRAPHIC CRITERIA FOR DIAGNOSIS OF PCOS

TBA

5:15—6:15 pm

##### 1. ROLE OF AMH IN DIAGNOSIS OF PCOS

*Enrico Carmina-Palermo, Italy*

##### 2. TREATMENT OF PCOS DURING ADOLESCENCE

TBA

##### 3. CHOICE OF ESTROPROGESTIN PRODUCT IN PCOS: INFLUENCE OF BODY WEIGHT AND AGE

TBA

7:00-9:00 pm **WELCOME RECEPTION**

### THURSDAY OCTOBER 23

#### MORNING

8:00—9:20 am **OBESITY and PCOS**

Diet and exercise in PCOS

*Lisa Moran—Adelaide, Australia*

Weight loss strategies and reproduction in PCOS

*Kathy Hoeger—Rochester, USA*

Adipogenesis and PCOS

*Daniel Dumesic—Los Angeles, USA*

9:20—9:50 am **PRESIDENTIAL LECTURE**

Developmental origins of PCOS: Initiation or Amplification by fetal androgen excess?

*David Abbott—Madison, USA*

9:50—10:20 am **COFFEE BREAK**

10:20—11:40 am **OVARIAN AND PLACENTAL DYSFUNCTION ASSOCIATED WITH PCOS**

New concepts of the normal and polycystic ovary

*Ray Rodgers—Adelaide, Australia*

How does prenatal and prepubertal androgen exposure affect placental function and development of PCOS?

*Elisabet Stener Victorin—Gothenburg, Sweden*

Androgenic programming of ovarian dysfunction

*Vasanth Padmanabhan—Ann Arbor, USA*

11:40 am—1:00 pm **ORAL COMMUNICATIONS**

# ANNUAL MEETING PRELIMINARY PROGRAM

## DAILY SCHEDULE

THURSDAY, OCTOBER 23

AFTERNOON

1:00—2:30 pm **LUNCH AND POSTER SESSION**

2:30—3:20 pm **CVD risk in PCOS**

Chronic inflammation and cardiometabolic disorders

*Nehal Mehta—Bethesda, USA*

Statins and PCOS

*Antoni Duleba—San Diego, USA*

3:30—4:00 pm **KEYNOTE LECTURE**

Preparing for pregnancy: basic biology through to delivery of health services for women with PCOS

*Robert Norman—Adelaide, Australia*

4:00—4:30 pm **COFFEE BREAK**

4:30—5:30 pm **ORAL COMMUNICATIONS—CLINICAL**

5:30—6:20 pm **PCOS PHENOTYPES IN EASTERN ASIA**

Cardiometabolic risk in Taiwanese PCOS populations

*Ming I Hsu—Taipei, Taiwan*

Prevalence and characters of polycystic ovary syndrome in women in China: a large community-based study

*Jie Qiao—Beijing, China*

6:20—7:00 pm **BUSINESS MEETING**

## ABSTRACT SUBMISSION

You are invited to submit abstracts of your original research to be considered for presentation at the 12th Annual Meeting of the Androgen Excess & Polycystic Ovary Syndrome Society. For abstract form, connect to: [www.ae-society.org](http://www.ae-society.org) or contact: [info@ae-society.org](mailto:info@ae-society.org)

To be considered for presentation your abstract must be submitted no later than September 7th, 2014, 11:00 pm (2300 hrs.) PST. All abstracts must be submitted by email in word to: [info@ae-society.org](mailto:info@ae-society.org). The presenter is required to register for 12th Annual Meeting of the AE-PCOS Society on submission of the abstract

All abstracts will be reviewed by a blinded scientific committee nominated by AE-PCOS Annual Meeting Committee. Accepted abstracts will be published on the abstract book and presented as oral communications.

The Baumgartner-Azziz AE-PCOS fund will award 2 Travel Awards (\$750 each) to the best abstracts presented by young (<35 years) investigators.

# REGISTRATION FORM

## 12TH AEPCOS ANNUAL MEETING

### REGISTRATION

\_\_\_\_\_ AEPCOS members \$260 \_\_\_\_\_ Non AEPCOS members \$360

### KAUAI MARRIOTT RESORT HOTEL AND BEACH CLUB

\$219 for night

\_\_\_\_ October 22 \_\_\_\_ October 23 \_\_\_\_\_ Number and dates of additional nights

Payment amount: \$\_\_\_\_\_ Credit card payment: \_\_\_\_\_ VISA \_\_\_\_\_ MasterCard \_\_\_\_\_ AMEX

Credit card number \_\_\_\_\_ Expiration date: \_\_\_\_/\_\_\_\_ CVV \_\_\_\_\_

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Check payment \_\_\_\_\_ Make checks payable to Androgen Excess Society. Email, mail or fax the registration form to: Androgen Excess & PCOS Society, via delle Croci 47, 1st floor, suite 10, 90139 Palermo, Italy. Fax: +39-091328997, Email: [info@ae-society.org](mailto:info@ae-society.org)

Registration includes transportation from/to airport, lunch and 2 coffee breaks. Price of the room is for single or double garden view room but does not include taxes (13.42%). Add \$30 for partial ocean view. The same hotel rate will be applied for up to 3 additional nights. Resort fee (\$30 daily) is optional.

Only written cancellation by fax or e-mail will be accepted. For cancellations until September 1, 2014, a 50% fee will be applied. Only taxes will be refunded after that date. **Pre-registered (before October 1, 2014) AEPCOS and ASRM members attending ASRM meeting and flying the route Honolulu-Lihue will get reimburse of \$100 of air ticket price. Pre-registered AEPCOS members flying directly to Lihue from continental USA will get reimburse of \$50.** Reimburses will be available at the meeting.



**ANDROGEN  
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Evanthia Diamanti  
Kandarakis, M.D.

## **EVIDENCE THAT DIETS RICH IN GLYCATION END PRODUCTS WORSEN THE METABOLIC AND HORMONAL PROFILE OF PCOS**

In this month's Newsletter, Poli Mara Spritzer interviewed Dr. Evanthia Diamanti Kandarakis, who commented on her recent publication: [IMPACT OF DIETARY MODIFICATION OF ADVANCED GLYCATION END PRODUCTS \(AGES\) ON THE HORMONAL AND METABOLIC PROFILE OF WOMEN WITH POLYCYSTIC OVARY SYNDROME \(PCOS\)](#). Tantalaki E, Piperi C, Livadas S, Kollias A, Adamopoulos C, Koulouri A, Christakou C, Diamanti-Kandarakis E. Hormones (Athens). 2014 Jan;13(1):65-73.

1. Evanthia, what was the objective of your study?

To investigate the impact of dietary intervention of Advanced Glycation End products (AGEs) intake on hormonal and metabolic profile in women with polycystic ovary syndrome (PCOS).

2. Could you summarize your findings?

The main findings of the present study which was conducted in women with PCOS are the following: (i) dietary AGEs are strongly associated with serum AGEs, (ii) dietary AGEs as well as serum AGEs are correlated with insulin resistance and oxidative stress markers, (iii) changes in dietary AGEs parallel changes in insulin sensitivity, oxidative stress and hormonal status.

3. What are the implications of your findings regarding nutritional recommendations for PCOS patients?

This is the first report to show a significant association between dietary and serum AGEs in women with PCOS. Dietary AGEs may modify both metabolic and hormonal parameters of affected women, independent of BMI changes. In conclusion, overexposure sure to exogenous AGEs, which are considered potent endocrine disruptors and are common in westernised diets, may exacerbate metabolic and hormonal profile as well as oxidative stress in PCOS. Conversely, lowering the concentration of AGEs in food may improve these variables.

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4. How do you think diet-induced increase on AGEs levels could alter insulin sensitivity in PCOS women?

Regarding metabolic aspects, the diet-induced elevation of AGEs levels and the increased oxidative stress may directly induce insulin signalling defects as suggested by previous in vitro and in vivo studies.

The editor added these two questions:

1. Evy, what are the foods that are particularly rich of end glycation products?

The HAGE (high concentration AGE) meal, which contain above 15.100 kU AGE, is usually prepared by frying or boiling at 230 °C for 20 min, whereas the LAGE (low concentration AGE) meal, approx. 2750 kU AGE, is prepared by steaming or boiling at 100 °C for 10 min

2. What kind of diet should you suggest?

Example: fruits and vegetables, any kind of food with low fat and low sugars, cooked, preferably boiled, at low temperatures.  
Avoid sugars and beverages, and any kind of fast food,