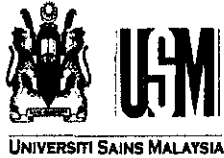


International Symposium on Wellness & Healthy Lifestyle

Yogyakarta, Indonesia

25 Februari 2010

**Dr. Wan Rosli Wan Ishak
Pusat Pengajian Sains Pergigian**



International Symposium on Wellness and Healthy Lifestyle

January 29, 2010

Dr Wan Rosli Bin Wan Ishak
School of Health Sciences, Universiti Sains Malaysia Health Campus
Kubang Kerian 16160
Kelantan - Malaysia

Invitation

It is our pleasure to invite you to attend the **International Symposium on Wellness and Healthy Lifestyle**, to be held in Gadjah Mada University, Yogyakarta, Indonesia on February 25th, 2010, and to deliver a presentation on the **Development of Health Food Products from Cornsilk**.

The **International Symposium on Wellness and Healthy Lifestyle** is organized by Waseda University - Japan, Universiti Sains Malaysia, and Gadjah Mada University - Indonesia.

I look forward to meet you in Yogyakarta.

Best Regards,

A handwritten signature in black ink, appearing to read "Lily Arsanti Lestari".

Lily Arsanti Lestari

Chairperson
School of Nutrition and Health
Faculty of Medicine - Gadjah Mada University
Jl. Farmako, Sekip Utara Yogyakarta 55142
Indonesia

International Symposium on Wellness and Healthy Lifestyle
Yogyakarta, February 25, 2010
Auditorium Building, Faculty of Medicine, Gadjah Mada University

TIME	PROGRAM		
0830 – 0915	Registration		
0915 – 0935	Welcome speech by : Dean Faculty of Medicine (Universitas Gadjah Mada) Chairman of Organizing Committee (University Sains Malaysia)		
0935 - 1015	Speech by Guest of Honour Prof. Suzuki Masashige (Waseda University) <i>"Dumbbell exercise and a missile nutrition of a high-protein snack to prevent obesity as well as sarcopenia and osteopenia"</i>		
1015 – 1045	Tea break		
1045 - 1215	<ol style="list-style-type: none"> 1. <i>On the Road to Wellness : Adopting Healthy Lifestyle through Physical Ectivity (Prof. Wan Manan bin Wan Muda)</i> 2. <i>Obesity in children and adolescents in Indonesia (dr. Madarina Julia, SpA(K), PhD)</i> 3. <i>Scientific Study for Diet on Obesity (Martalena Purba, MCN., PhD)</i> 4. <i>Socio-demographic and clinical factors associated with overweight and obesity in the district of Bachok, Kelantan, Malaysia (Dr Tengku Alina)</i> 5. <i>The sympathetic nervous system activity and obesity among the participant of plantation management course (dr. Zaenal Muttaqien Sofro, AIFM, Sport&Circ.Med)</i> 		
1215 -1245 1245 - 1300	6. <i>Physical activity for fitness (Dr. Wara K)</i> Discussion Certificate of appreciation for presenters session 1		
1300 - 1400	Lunch break		
1400 – 1530	Auditorium Building, 1st floor		
1400 - 1500	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ol style="list-style-type: none"> 1. <i>Development of Health Food Products from Comsilk (Dr. Wan Rosli bin Wan Ishak)</i> 2. <i>Arrowroot Starch as Healthy Food : Effect of Arrowroot Starch on Microbiota & Short Chain Fatty Acid Profile of Cecal Content in Balb/c Mice (Dr. Eni Harmayani)</i> 3. <i>The Prevalence of Metabolic Syndrome in a Malay Community using three Common diagnosis criteria (Dr Hamid Jan JM)</i> 4. <i>The Role of Macrophage to cause Many Diseases in Obesity Individuals (Rosa Lelyana)</i> </td> <td style="width: 50%; vertical-align: top;"> Classroom International Building <ol style="list-style-type: none"> 1. <i>The Association Between Saturated Fatty Acid Intake and Central Obesity Among Employee in Dr. Sardjito Hospital, Yogyakarta (Esti Nurwanti)</i> 2. <i>Effect of Healthy Food Intervention and Exercise on Energy Intake and BMI od Childhood Obesity (Adriyan Pramono)</i> 3. <i>Risk Factor Related to Overweight (Muwahidah)</i> 4. <i>The Relationship Between Energy Consumption and The Level of Physical Fitness to Elementary School Children's Learning Achievement (Listyani Hidayati)</i> </td> </tr> </table>	<ol style="list-style-type: none"> 1. <i>Development of Health Food Products from Comsilk (Dr. Wan Rosli bin Wan Ishak)</i> 2. <i>Arrowroot Starch as Healthy Food : Effect of Arrowroot Starch on Microbiota & Short Chain Fatty Acid Profile of Cecal Content in Balb/c Mice (Dr. Eni Harmayani)</i> 3. <i>The Prevalence of Metabolic Syndrome in a Malay Community using three Common diagnosis criteria (Dr Hamid Jan JM)</i> 4. <i>The Role of Macrophage to cause Many Diseases in Obesity Individuals (Rosa Lelyana)</i> 	Classroom International Building <ol style="list-style-type: none"> 1. <i>The Association Between Saturated Fatty Acid Intake and Central Obesity Among Employee in Dr. Sardjito Hospital, Yogyakarta (Esti Nurwanti)</i> 2. <i>Effect of Healthy Food Intervention and Exercise on Energy Intake and BMI od Childhood Obesity (Adriyan Pramono)</i> 3. <i>Risk Factor Related to Overweight (Muwahidah)</i> 4. <i>The Relationship Between Energy Consumption and The Level of Physical Fitness to Elementary School Children's Learning Achievement (Listyani Hidayati)</i>
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1500 - 1530	Discussion		
1530 – 1545	Certificate of appreciation for presenters session 2		
1545 - 1600	Closing ceremony		
1600 - 1630	Tea break		

DEVELOPMENT OF HEALTH FOOD PRODUCTS FROM CORNSILK

*Wan Rosli, W.I., Nurhanan, A. R., Solihah, M. A., Nik Fakurudin, N. A,
Saiful Haizad, A. J. & Mohsin, S. S. J.

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Kerian, Kelantan, Malaysia.

ABSTRACT

The interest in food rich in antioxidants and dietary fibres, has grown in the current decade and the significance of these food constituents has led to the development of a large market for antioxidant and fibre rich products and ingredient. The intake of dietary fibre and phytochemicals have been linked to the maintenance of health and protection from diseases such as colon cancer, cardiovascular diseases, hyperglycemia, gastrointestinal unrests and many other degenerative diseases. Another plausible reason for the addition of dietary fibers in some formulations can be the improvement of the nutritional properties, sensory quality and reduction in the production costs of the food products. This paper discusses the development of dietary fibre from cornsilk as a health food ingredient. Cornsilk or *Zea mays* hairs are normally discarded during the preparation of young corn cob as vegetable despite the richness in dietary fibre, antioxidant and other important nutrients. The present study noted that dried cornsilk contained 38.4 g/100g of total dietary fibre and 40.6 mg/100g of total sugars, respectively. The addition of cornsilk powder in beef patties resulted in an increase in the nutritional compositions, water and fat holding capacity while maintaining the sensory quality of beef thus acceptable to consumers. Dried *Zea mays* hairs can therefore be used as alternative sources of dietary fibre in processed food and functional drink.

KEYWORDS: *Zea mays* hair or cornsilk, nutritional composition, sensory evaluation

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BACKGROUND

Public interest in food rich in antioxidants and dietary fibres, has grown in the current decade and the significance of these food constituents has led to the development of a large market for antioxidant and fibre rich products and ingredients. Natural fibre-rich diets which are generally rich in fruits, vegetables and whole grains are beneficial to health, and that some of the benefits are not necessarily due to fibre per se but reflect the fact that such diets tend to be rich in vitamins, minerals, and antioxidants while they are also low in fats (Mann & Cummings 2009). The intake of dietary fibre and phytochemicals such as polyphenols, carotenoids, tocopherols and ascorbic acid have