



# PROGRAM AND PROCEEDING BOOK

## The 3<sup>rd</sup> ASEAN Plus and Tokushima Joint International Conference

Theme:

"Strategic Achievement of Oral Sciences and Promotion of Quality of Life and Professional Education for Oral Hygienists by Using Information and Communication Technology"

Organized by:

Faculty of Dentistry  
Hasanuddin University  
Makassar, Indonesia



Faculty of Dentistry  
The University of Tokushima  
Tokushima, Japan



Venue: Imperial Aryaduta Hotel, Makassar, Indonesia  
Date : December 4<sup>th</sup> - 5<sup>th</sup>, 2014



Publisher  
Faculty of Dentistry  
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been reported that the osteoporosis due to estrogen deficiency can be prevented by treatment with agent.

**Purpose:** The aim of this research was to examine effectiveness of *Penaeus monodon* shrimp shell waste supplementation to prevent further of alveolar bone resorption in osteoporosis wistar rats which induced by ovariectomized.

**Method:** This experimental study was held in laboratory. The experiment used by post test only control group design. Fifty wistar rats were dividing into five groups. K0 group as a negative control group, K1 as positive control group (ovariectomized and given standart feed diet), K2 as positive control group (ovariectomized and given *Penaeus monodon* shrimp shell waste 0.4mg/gBW/day mixed with standart feed diet), K3 groups (ovariectomized and given 0.7mg/gBW/day *Penaeus monodon* shrimp shell waste mixed with standart feed diet), K4 group (ovariectomized and given 1.1mg/gBW/day *Penaeus monodon* shrimp shell waste mixed with standart feed diet). After treatments on the 13<sup>th</sup> weeks, all groups of rats were euthanazied and the height of alveolar mandibula bone measured through intraoral radiographic result by calipers. All of the datas were analyzed by one way ANOVA and LSD test ( $p < 0.05$ ).

**Results:** Result of this research showed the height of alveolar mandibula bone in K1 group were lowest than another groups. The height of mandibula bone in K1, K2, K3, K4 groups was significantly lower compared by K0 group. K2, K3, K4 groups was significantly higher compared by K1 group.

**Conclusion:** Osteoporosis induced by ovariectomized caused decrease alveolar mandibular bone height in wistar rats. *Penaeus monodon* shrimp shell waste supplementation is effective to preventing futher of alveolar bone resorption in rats which induced by ovariectomized.

**Keywords:** *Penaeus monodon*, osteoporosis, ovariectomized, alveolar mandible bone resorption.

#### Poster 11 Antioxidant In Ortodontic Treatment

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Free radicals are unpaired and highly reactive molecules. Examples of free radicals are Superoxide ( $O_2^-$ ), Hydrogen Peroxide ( $H_2O_2$ ), Hydroxyl Radical (OH) and Singlet Oxygen ( $O_2$ ), which are Reactive Oxygen Species (ROS). These molecules will take electrons from biologic molecules, such as DNA, proteins, and membrane phosphor lipids can lead to biological damage and trigger various diseases. Therefore, it's necessary to take any antioxidant compounds from outside the body that can neutralize free radicals. Orthodontic treatment is a basic process of

remodeling of teeth based on an inflammatory reaction. A phenomenon with antioxidant treatment orthodontic becomes faster. There is a link between free radicals in an orthodontic treatment. Studies need to be done a dentist's involvement in an antioxidant treatment.

**Keywords:** Antioxidant, ROS, Orthodontic Treatment.

#### Poster 12 Waste Materials From Shrimp Sheels As A Source Of Nano Chitosan (Laboratory Experimental)

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Chitosan known as a material that has antibacterial properties. One of the biggest sources of chitosan contained on the waste materials from shrimp shells.

**Objective:** The development of nanotechnology can produces nanochitosan that more effective as an antibacterial materials.

**Materials and methods:** Waste materials of shrimp shells washed and dried, soaked in a solution of HCl and filtered. Result of filtered, dropped with NaOH liquids until a precipitate is formed and then filtered again. After that dried with tanurisation for 6 hours.

**Results:** Natural of nanochitosan materials can derived from shrimp shells.

**Conclusion:** Shrimp shells as a source of nanochitosan that can be produced easily and naturally

**Keywords:** Shrimp shells, Nanochitosan.

#### Poster 13 Correlation Of The Amount Of Salivary Neutrophils And Expression Of Interleukine 8 (IL-8) In Severe Early Childhood Caries

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**Background:** Early Childhood caries is a very serious health problem because it is a chronic infectious disease that is infectious. Dental caries begins after the primary teeth grow and develop on the tooth surface very quickly and progressive. In recent





INTERNATIONAL SEMINAR  
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*Certificate*

*Presented to*

**Wiwekowiati**

**As**

**Poster Presenter**

**Antioxidant In Ortodontic Treatment**

**in The 3<sup>rd</sup> ASEAN plus and Tokushima Joint International Conference**

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- P8 Catechin Inhibition Toward The *S. mutans* Growth  
**Tri Purnami Dewi**  
Faculty of Dentistry Mahasaraswati Denpasar University, Denpasar, Indonesia
- P9 Human Beta Defensin Peptide Expression And Dental Caries Experience In Children  
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- P10 Protection Effect Of *Penaeus monodon* Shrimp Shell Waste Supplementation To Alveolar Bone Resorption Of Osteoporosis Rats  
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- P11 Antioxidant In Ortodontic Treatment  
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- P12 Waste Materials From Shrimp Sheels As A Source Of Nano Chitosan (Laboratory Experimental)  
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- P13 Correlation Of The Amount Of Salivary Neutrophils And Expression Of Interleukine 8 (IL-8) In Severe Early Childhood Caries  
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