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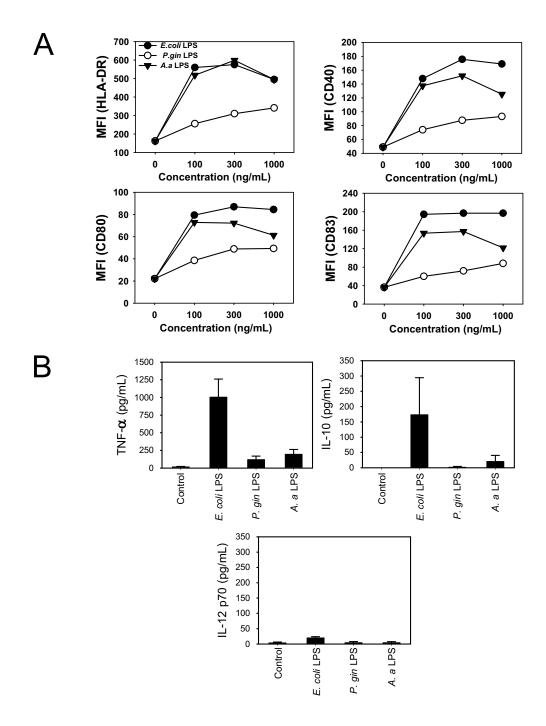
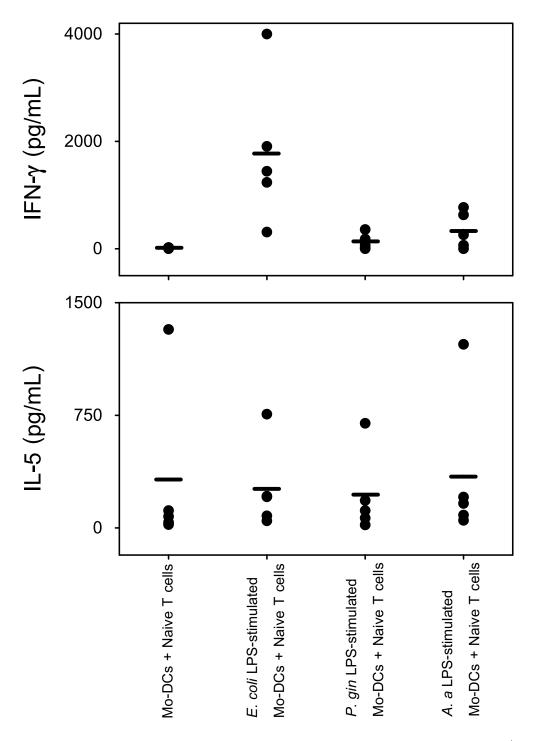


Figure 1. LPS from P. gingivalis, A. actinomycetemcomitans, and E. coli induced Mo-DC maturation. Immature Mo-DCs were stimulated with different concentrations of LPS (0, 100, 300, 1000 ng/mL) for 24 hrs. Cell surface expression of HLA-DR, CD40, CD80, and CD83 (A) and cytokine production of TNF- $\alpha$ , IL-10 and IL-12 p70 (B) were analyzed by flow cytometry and ELISA respectively. Data on molecule surface expression are representatives of 4 independent experiments and shown as MFI. Data on cytokines are mean  $\pm$  SE.



**Figure 2.** The stimulatory capacity of bacterial LPS-stimulated Mo-DCs on allogeneic naïve  $CD4^{+}$  T cells in MLR. Control Mo-DCs and *P. gingivalis*, *A. actinomycetemcomitans*, or *E. coli* LPS stimulated-MoDCs were used to prime naïve  $CD4^{+}$  T cells for 5 days, and then cultured supernatant were assayed for IFN- $\gamma$  and IL-5 production. Each spot represents the cytokine levels of individual experiment (n = 5) and horizontal lines are mean values.

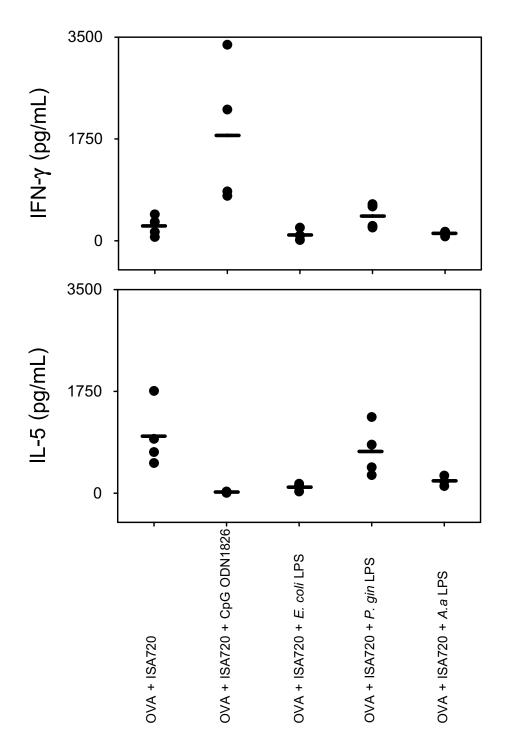


Figure 3. Induction of OVA-specific T cell response. Splenocytes collected from four groups of mice were evaluated for antigen-specific IFN- $\gamma$  and IL-5 production. Each spot represents the levels of cytokine produced from each individual animal and horizontal lines are mean values.

## 2. Invited review in Periodontology 2000.

The other expected publication is the review article which will be published in Periodontology 2000 in 2006 issue. Attached email from the editor, Professor Isao Ishikawa, is an invitation for writing a review article in immunological section of the issue "Host response in Periodontal disease". At present, the manuscript is being prepared and Thailand Research Fund (BRG/11/2545) will be acknowledged.

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#### Dear Rangsini

It has been quite long time since we communicate each other. I hope you are fine.

Recently I am asked to edit the one issue of the Periodontology 2000 (Blackwell Publishing Co.) which will be appeared in 2006 from Professor Slots. I already edited this year Periodontology 2000 vol. 36 2004 entitled "Non surgical periodontal therapy" together with Professor Beahni. Then he asked me to continue the editing. Following is the first draft of the content. All of the candidates already sent me the acceptance of participation. Now I would like to invite you to write a review manuscript in the immunological section. This would be different from Greg and Marty. I would be grateful if you could kindly accept to write a manuscript following mentioned within 2005 (next year). I am looking forward to hearing from you.

In another letter, it is my pleasure to send you a copy of Periodontology 200 vol. 36 2004. You will receive it soon.

#### Basic Research

Fundamental mechanism of host response to infection

Prof. Miyuki Azuma

Regulation of osteoblast differentation by cytokines and molecular pattern

Prof. Nobuyuki Udagawa

Immunological reaction Prof. Gregory Seymour Dr. Martin A. Taubman

Periodontal disease and PGE2

Dr. Kazuyuki Noguchi

OPG and RANKL

Dr. Toshiyuki Nagasawa

SNPs

Prof. Hiromasa Yoshie

PMNs dysfunction

Prof. Thomas E. Van Dyke

### Clinical Research

Influence of smoking Prof. Mark I Ryder

Influence of diabetes
Dr. Fusanori Nishimura

Influence of obesity Dr. Toshiyuki Saito

Relationship to implant failure Dr. Joseph P. Fiorellini

Host response of aggressive periodontitis Prof. Denis Kinane Prof. PM Bartold

Prof. William Giannobile

Best regards Sincerely yours

Isao

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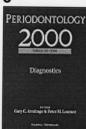
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Edited by: Jørgen Slots

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Surgery & Medicine) Impact Factor: 1.333



### Aims and Scope

Periodontology 2000 comprises a series of monographs intended for periodontists and general practitioners with interest in periodontics. The editorial board identifies significant topics and invites a guest editor to prepare each monograph. Periodontology 2000 is a different concept in periodontal literature and serves as a valuable supplement to existing periodontal journals. Each volume is richly illustrated in both black and white and colour.

Three volumes a year are published in February, June and October.

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3. We originally proposed to evaluate the specificity of Toll-like receptors (TLRs) for pathogen-associated molecular patterns (PAMPS) of plaque bacteria such a *P.gingivalis* LPS and *A. actinomycetemcomitans* LPS. The TLR2 and TLR4 transfected cells (HEK293) were obtained from Dr E.A. Kurt-Jones (University of Massachusetts Medical school). The cells were grown in RPMI 1640 with 10% heat-inactivated FCS. When we analyzed the phenotype of the transfected cells, we could not detect TLR2 or TLR4 expression. This could be due to the lost of expression during long period of subculture. Therefore, the original plan for the investigation of TLR specificity for the two bacterial plaque could not be carried out. However, we added the study of an OVA-specific T cell response in mouse model in order to explore the type of antigen-specific Th response induced *in vivo* by the LPS of the two plaque bacterial pathogens and to confirm the findings of human *in vitro* MLR.

# 4.กิจกรรมที่เกี่ยวข้องกับการนำผลจากโครงการไปใช้ประโยชน์

- เสนอผลงานวิจัยเรื่อง "Different plaque bacteria induce a different dendritic cell activation." ในงาน ประชุม 7<sup>th</sup> International Symposium on Dendritic Cells ณ.เมือง Bamberg ประเทศเยอรมัน วันที่ 19-24 กันยายน 2545
- ได้รับเชิญประชุม และเสนอผลงานวิจัยเรื่อง "Monocyte Activation by *Porphyromonas gingivalis* LPS in Aggressive Periodontitis Using Whole Blood Cultures." ในงานประชุม 81<sup>th</sup> General Session and Exhibition of the International Association for Dental Research ณ.เมือง Gotenborg ประเทศสวีเดน วันที่ 23-28 มิถุนายน 2546
- วิทยากรบรรยายเรื่อง "Hyperresponsiveness of monocyte in Periodontitis" ณ. คณะทันต แพทยศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ วันที่ 19 สิงหาคม 2546
- ดูงานและทำงานวิจัยใน cooperative research project เรื่อง "Role of dendritic cells in periodontitis" ภายใต้ JSPS-NRCT Core University program ณ เมืองโอซากา ระหว่างวันที่ 5-11 กันยายน 2546 และเมืองโตเกียว ประเทศญี่ปุ่น ระหว่างวันที่ 11-14 กันยายน 2546
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- วิทยากรบรรยายเรื่อง "Periodontogenic Bacteria" ในวันที่ 11 กุมภาพันธ์ 2547 และ บรรยายเรื่อง "Host-bacterial interactions in periodontitis" ในวันที่ 18 กุมภาพันธ์ 2547 ณ. คณะทันต แพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์
- วิทยากรบรรยายเรื่อง "Microimmunopathogenesis of Periodontal diseases" ณ. คณะทันต แพทยศาสตร์ มหาวิทยาลัยสงขลานครินทร์ วันที่ 20 กุมภาพันธ์ 2547
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