**Korean Division of the International Association for Dental Research (KADR)**

1. **Abstract**

a. Only poster presentation is available in the meeting, except invited speakers for the special lectures and symposium

b. Please download the abstract form from the KADR homepage (www.iadr.or.kr). Also, please find the abstract form below

b. Only email submission is available. Please submit the abstract at [abstracts2015kadr@gmail.com](mailto:abstracts2015kadr@gmail.com) (recipient: Secretary of Academic Affairs, Jin Chung (School of Dentistry, Pusan National University)

c. Deadline: Oct 23rd 2015 (Fri)

d: All poster presenters will be required to pre-register for the meeting. There will be NO on-site registration available for the poster presenters.

**2. Registration**

a. Pre-registration: Early – before Oct 16, Regular – before Oct 30, Late/On-site- on Nov 14.

b. Local wire-transfer is available for registration of residents of Korea.

Bank account No: Shinhan bank 110-405-635032 YU FRANK HONG

After wire-transfer, please email following information (Name, Affiliation, Amount and Date Transferred) to [**register2015kadr@gmail.com**](mailto:register2015kadr@gmail.com)(prof. Frank Yu, Treasurer, Seoul National University)

c. If you are Pre-registering from outside Korea, please contact Pr. Frank Yu by email ([register2015kadr@gmail.com](mailto:register2015kadr@gmail.com)).

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| --- | --- | --- | --- | --- |
|  | | Pre-registration | | Late/On-site |
| Early (before Oct 16) | Regular (before Oct 30) |
| Members | Regular | 60,000 won | 80,000 won | 100,000 won |
| Students | 30,000 won | 50,000 won | 70,000 won |
| Non-Members | Regular | 110,000 won | 130,000 won | 150,000 won |
| Students | 110,000 won | 130,000 won | 150,000 won |

**3**. **Poster Presentation**

The dimensions of the poster should not exceed 120 cm wide x 200 cm high. Allocate the top of the poster for the title and authors as stated on the submitted abstract. Only tacks and Velcro-tape are permitted for the mounting of poster.

**Korean Division**

**of the International Association for  
Dental Research (KADR)**

November 14, 2015

Seoul National University School of Dentistry (Main Auditorium), Seoul, Korea

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| SCHEDULE OF EVENTS | | |
| Nov. 14 (Sat.), 2015: The 34thAnnual Academic Session of KADR | | |
| Time | Event |  |
| 08:30-10:30 | Hatton Award Competition |  |
| 09:30-10:00 | Registration and Poster Set Up |  |
| 09:30-17:30 | Poster Viewing |  |
| 09:50-10:00 | Opening Ceremony |  |
| 10:00-10:10 | Opening Address  - Young Ku (President of KADR)  - Byung-Moo Min (Chairman of organizing committee 2016 IADR Seoul) |  |
| 10:10-10:50 | Special lecture I - Jukka Meurman (President-elect IADR, University of Helsinki, Institute of Dentistry) | Chairperson:  Byung-Moo Min |
| 10:50-11:30 | Special lecture II - Keiji Moriyama (Japanese Division, Tokyo Medical and Dental University, Faculty of Dentistry) | Chairperson:  Kang-Ju Kim |
| 11:30-12:10 | Special lecture III - Zhongchen Song (Chinese Division, Shanghai Jiaotong University School of Stomatology) | Chairperson:  Ho-Hyun Son |
| 12:10-13:00 | Break & Lunch |  |
| 13:00-14:00 | Poster Presentation (Presenter attendance required) |  |
| 14:00-16:45 | Scientific Program (Room A, B, C) | Basic/Clinical Dentistry |
| 16:45-17:00 | Break |  |
| 17:00-18:00 | Panel Discussion for Future Dental Research Agenda Development | Supported by MSIP |
| 18:00-18:30 | Closing Remarks, Awards Ceremony & KADR General Meeting |  |

※ Remove Poster from 17:30 ~

**Abstract Submission Form**

▣ Fill out the blanks

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Presenter Information** | | | | | |
| **Name** |  | | **Advisor** | |  |
| **Affiliation** |  | |
| **Affiliation addres** |  | | | | |
| **Mobile phone** |  | **Email** | |  | |

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| **Presentation Form** | ( ) Hatton Award Competition  ( ) Johnson & Johnson KADR Award Competition  ( ) Poster |

\* Hatton Award and Johnson & Johnson KADR Award applicants should prepare both “Oral and Poster” presentation.

|  |  |
| --- | --- |
| **Theme** **(check one)** | 1. Behavioral, Epidemiologic & Health Services Research/Nutrition Research/Oral Health Research ( )  2. Dental Materials ( )  3. Craniofacial Biology/Mineralized Tissue/Pulp Biology & Regeneration ( )  4. Neuroscience/Dental Anesthesiology Research ( )  5. Cariology Research/Microbiology/Immunology ( )  6. Pharmacology/Therapeutics/Toxicology ( )  7. Diagnostic Sciences/Oral Medicine & Pathology ( )  8. Periodontal Research ( )  9. Oral & Maxillofacial Surgery ( )  10. Prosthodontics/Implantology Research ( )  11. Salivary Research/Geriatric Oral Research ( )  12. Education Research ( ) |

**Prepare the Abstract in English (see the sample in the next page)**

(Font size; 10pt, font; Times and New Roman, line interval 160)

***Porphyromonas gingivalis* and dextran sodium sulfate induce periodontitis through the disruption of physical barriers**

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Youngkyung Ko4, Youngnim Choi1\*

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4Department of Dentistry, College of Medicine, The Catholic University of Korea, Seoul, Korea

**Objectives:** Gingival epithelial barriers provide the first line of defense against plaque-associated bacteria, the primary cause of periodontitis. However, the role of physical barriers in the pathogenesis of periodontitis has not been studied. The aim of this study was to investigate the role of physical barrier in the pathogenesis of periodontitis.

**Methods:** To investigate the role of physical barriers in the pathogenesis of periodontitis, dextran sulfate sodium (DSS), a tight junction (TJ)-disrupting chemical, was applied onto the gingival mucosa of mice in the absence or presence of Porphyromonas gingivalis and alveolar bone loss was measured. The levels of the TJ protein ZO-1, the number of T cells, and the presence of bacteria with in gingival tissue were examined by immunohistochemistry and in situ hybridization, respectively. In addition, oral bacterial communities were analyzed by pyrosequencing.

**Results:** Both DSS and P. gingivalis induced alveolar bone loss accompanied by the reduced ZO-1 expression in the junctional epithelia. The reduction in ZO-1 expression was associated with increased bacterial invasion and T-cell infiltration into gingival tissue, providing a link to alveolar bone loss. Interestingly, DSS and P. gingivalis induced similar dysbiosis of oral microbiota. The association between compromised physical barriers and periodontitis was further supported by the reduced ZO-1 expression in the periodontal lesions of patients with chronic periodontitis.

**Conclusions:** These findings suggest that a barrier-disrupting periodontal pathogen or chemical induces periodontitis by facilitating bacterial invasion into tissues. Therefore, physical barriers may be a promising future target for the prevention and treatment of periodontitis.

**Acknowledgements:** This study was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MEST) (No. 2011-0024650).

**Awards**

♣ Only current members (2015 or 2016) are qualified to apply for the awards.

■ **Hatton Award Competition (5 awardees)**

● **Hatton Award** **2** **awardees** (basic science 1, clinical science 1)

1st prize (Bumho Young Investigator Award): 800,000 won (scholarship from KADR),

Air fare+ accommodation (provided from IADR),

2nd prize: 500,000 won (scholarship from KADR),

Air fare+ accommodation (provided from IADR),

- Two Awardees are pre-qualified to attend 2017 IADR Hatton Award competition (Mandatory).

- Scholarship from KADR is only provided to the attendees after the attendance of 2017 IADR Hatton Award competition has been confirmed

● **JADR travel award** (younger than 35, only DDS)

3rd prize: 70,000 yen (provided from JADR)

- Pre-qualified to attend 2016 JADR annual meeting (Mandatory).

● **Outstanding presentation awards (2 awardees)**

4th, 5th: 200,000 won

■ **Competition for Dental School Students**

● **Johnson & Johnson KADR Award 2** **awardees** (basic science 1, clinical science 1)

- Only for undergraduate students who currently attend dental schools,

- US $600 provided from Johnson and Johnson Co.

- Pre-qualified to attend 2016 IADR Joseph Lister Award competition during IADR SEA Division annual meeting (Mandatory).

■ **Poster Award**

● **~ two awardees from each presentation theme**, 100,000 won scholarship from KADR

**\*** With any questions you may have, please contact, prof. Jin Chung (Secretary of Academic Affairs, School of Dentistry, Pusan National University, Tel; 051-510-8245, email; [jchung@pusan.ac.kr](mailto:jchung@pusan.ac.kr)). Or visit KADR homepage at [http://iadr.or.kr](http://iadr.or.kr/html/rule.asp)