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別添：各国とのシンポジウムのプログラム

The Second China-Japan Meeting 26th November 2013, Beijing, China

Agenda

09:00 Opening Remark

Dr. DONG Xiaoping

Deputy Director, National Institute for Viral Disease Control and
Prevention, China CDC

Dr. Haruo WATANABE

Director-General, National Institute of Infectious Diseases

09:10-09:50

1) Surveillance on Legionella and pneumococcal infection in Japan

Dr. Bin CHANG, Senior Research Scientist, Department of Bacteriology I, NIID

2) The hospitalization burden associated with influenza virus and Streptococcus
pneumoniae infections in central China: surveillance for severe, acute respiratory
infections, 2010-2012

Dr. YU Hongjie, Director of Division of Infectious Disease, China CDC

10:00-10:40

3) SFTS

Dr. Shigeru MORIKAWA, Director, Department of Veterinary Science, NIID

4) Research on Severe Fever with Thrombocytopenia Syndrome

Dr. LIANG Mifang, National Institute for Viral Disease Control and Prevention,
China CDC

10:50-11:30

5) Diagnosis system of MERS-CoV in Japan

Dr. Shutoku MATSUYAMA, Chief, Laboratory of Acute Viral Respiratory Infections and Cytokines, Department of Virology III, NIID

6) Potential emerging respiratory infection pathogens discovery based in national influenza surveillance network

Dr. WANG Dayan, Deputy Director of Chinese National Influenza Center, IVDC

13:30-14:10

7) O-serotyping of *V.cholerae* non-O1/non-O139

Dr. Eiji ARAKAWA, Senior Research Scientist, Department of Bacteriology I, NIID

8) Laboratory based surveillance for multiple foodborne diseases: Practice and lessons in the city level of China

Dr.KAN Biao, Deputy Director of National Institute for Communicable Disease Control and Prevention, China CDC

14:20-15:00

9) Genetic and phenotypic diversities of enterovirus 71 isolates

Dr.Hiroyuki SHIMIZU, Chief, Laboratory of Enteroviruses, Department of Virology II, NIID

10) Molecular epidemiology of EV71 from 1998 to 2012

Dr. XU Wenbo, Assistant Director of National Institute for Viral Disease Control and Prevention, China CDC

**NIID-NIHE Second Meeting on Collaborative Research Program
29 October 2013, Hanoi, Vietnam**

| | |
|--------------------------------|---|
| 09:00 | Opening Remark Prof. Nguyen Tran Hien, Director, National Institute of Hygiene and Epidemiology (NIHE) Dr. Haruo WATANABE, Director-General, National Institute of Infectious Diseases (NIID) |
| Results of 9 Researches | |
| 09:10 | HFMD and EV71 Prof. Nguyen Thi Hien Thanh, Department of Virology, NIHE Dr. Hiroyuki SHIMIZU, Department of Virology II, NIID |
| 09:35 | Rabies Dr Nguyen Thi Kieu Anh, Department of Virology, NIHE Dr Satoshi INOUE, Department of Veterinary Science, NIID |
| 10:00 | <i>Tea break</i> |
| 10:15 | Measles and Rubella Dr. Trieu Thi Thanh Van, Department of Virology, NIHE Dr. Katsuhiko KOMASE, Department of Virology III, NIID |
| 10:35 | <i>V. cholerae</i> Prof. Nguyen Binh Minh, Department of Bacteriology, NIHE Dr. Hidemasa IZUMIYA, Department of Bacteriology I, NIID |
| 10:55 | Anthrax Dr. Hoang Thi Thu Ha, Department of Bacteriology, NIHE Dr. Satoshi INOUE, Department of Veterinary Science, NIID |
| 11:20 | Discussion |
| 12:00 | <i>Lunch Break</i> |
| 14:00 | NDM-1 Dr. Tran Huy Hoang, Department of Bacteriology, NIHE Dr. Keigo SHIBAYAMA, Department of Bacteriology II, NIID |
| 14:20 | Histoplasmosis Dr. Hoang Thi Thu Ha, Department of Bacteriology, NIHE Dr. Hideaki OHNO, Department of Chemotherapy and Mycoses, NIID |
| 14:45 | <i>Tea break</i> |

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|-------|---|
| 15:00 | <p><i>Clostridium difficile</i></p> <p>Dr. Vu Thi Thu Huong, Department of Bacteriology, NIHE Dr. , Haru KATO, Department of Bacteriology II, NIID</p> |
| 15:20 | <p>Leptospirosis</p> <p>Dr. Hoang Thi Thu Ha, Department of Bacteriology, NIHE Dr. , Nobuo KOIZUMI, Department of Bacteriology I, NIID</p> |
| 15:40 | General Discussion |
| 16:30 | Closing Remarks |

Taiwan CDC-HIID; Vaccine Preventable Diseases and Vector-Borne Diseases

September 12-13, 2013

the National Institute of Infectious Diseases, Tokyo, JAPAN

September 12, Thursday

Opening Session (09:30-10:00)

Session 1: “Vector-Borne Diseases”

Co-Chairs

(Japan) Dr Haruo WATANABE, Director-General, NIID

(Taiwan) Dr. Hwa-Jen Teng, Section Chief, Center for Research,
Diagnostics and Vaccine Development, CDC, Taiwan

10:00-10:30

“Severe fever with thrombocytopenia syndrome in Japan”

Dr Masayuki SAIJO, Director, Department of Virology I, NIID

10:30-11:00

“Vector-borne diseases in Taiwan”

Dr. Hwa-Jen Teng, Section Chief, Center for Research, Diagnostics and Vaccine
Development, CDC, Taiwan

11:00-11:30

“Lyme borreliosis in Japan”

Dr Hiroki KAWABATA, Chief, Laboratory of Systemic Infection, Department of
Bacteriology I, NIID

11:30-12:00

“Surveillance of Anaplasma spp. and Ehrlichia spp. in ticks and small mammals in Taiwan”

Dr. Hsi-Chieh Wang, Associate Researcher, Center for Research, Diagnostics and Vaccine
Development, CDC, Taiwan

12:00-13:00 Lunch Break

Session 2: “Vaccine Preventable Diseases”(I)

Co-Chairs

(Japan) Dr Masayuki SAIJO,
Director, Department of Virology I, NIID

(Taiwan) Dr. Feng-Yee Chang,
Director-General, CDC, Taiwan

13:00-13:30

“Overview of avian influenza A(H7N9) viruses, pandemic preparedness and vaccine development”

Dr Takato ODAGIRI, Chief, Laboratory of Influenza Virus Surveillance,
Influenza Virus Research Center, NIID

13:30-14:00

“Surveillance and Preparedness of H7N9 influenza — Taiwan, 2013”

Dr. Yi-Chun Lo, Chief Executive Officer, Office of Preventive Medicine, CDC, Taiwan

14:00-14:30

“Pathology of rabies; Human, dog and mouse”

Dr Minoru TOBIUME, Senior Research Scientist, Department of Pathology, NIID

14:30-15:00

“Reemergence of wild animal rabies — Taiwan, 2013”

Dr. Yi-Chun Lo,
Chief Executive Officer, Office of Preventive Medicine, CDC, Taiwan

15:00-15:30 Coffee Break

Session 3: “Vaccine Preventable Diseases”(II)

Co-Chairs

- (Japan) Dr Makoto OHNISHI,
Director, Department of Bacteriology I, NIID
- (Taiwan) Dr. Ruwen Jou, Researcher, Center for Research,
Diagnostics and Vaccine Development, CDC, Taiwan

15:30-16:00

“Introduction of inactivated poliovirus vaccines in Japan global and local status of polio immunization”

Dr Hiroyuki SHIMIZU, Chief, Laboratory of Enteroviruses,
Department of Virology II, NIID

16:00-16:30

“The application of inactivated polio vaccine for polio control in Taiwan”

Mr. Fu-Tien Lin,
Technical Specialist, Division of Acute Infectious Diseases, CDC, Taiwan

16:30-17:00

“TB epidemiology, policy and BCG vaccination in Taiwan”

Dr. Pei-Chun Chan,
Physician of Preventive Medicine, Division of HIV/AIDS and TB,
CDC, Taiwan

17:00-17:20

“Structural insights into a diadenosine tetraphosphate phosphorylase from *Mycobacterium tuberculosis*”

Dr Shigetarou MORI, Chief, Laboratory for Tuberculosis Control,
Department of Bacteriology II, NIID

17:20-17:40

“Genetics of drug-resistant *Mycobacterium tuberculosis*”

Dr. Pei-Chun Chuang,
Associate Researcher, Center for Research,
Diagnostics and Vaccine Development, CDC, Taiwan

September 13, Friday

Session 4: “Vaccine Preventable Diseases”(III)

Co-Chairs

(Japan) Dr Makoto TAKEDA,
Director, Department of Virology III, NIID

(Taiwan) Dr. Yi-Chun Lo, Chief Executive Officer,
Office of Preventive Medicine, CDC, Taiwan

10:00-10:30

“Epidemiological situation of recent Rubella in Japan”

Dr Tomimasa SUNAGAWA, Chief, Surveillance and Information Division,
Infectious Disease Surveillance Center, NIID

10:30-11:00

“Epidemiology and control of rubella in Taiwan”

Mr. Fu-Tien Lin,
Technical Specialist, Division of Acute Infectious Diseases, CDC, Taiwan

11:00-11:30

“Molecular epidemiology and laboratory diagnosis of rubella in Japan”

Dr Yoshio MORI,
Chief, Laboratory of Rubella Virus,
Department of Virology III, NIID

11:30-12:00

“Molecular surveillance of rubella viruses in Taiwan”

Ms. Wen-Yueh Cheng,
Associate Researcher, Center for Research, Diagnostics and Vaccine Development, CDC,
Taiwan

12:00-13:00 Lunch Break

Session 5: “Cooperative Project Reports”(I)

Co-Chairs

(Japan) Dr Keigo SHIBAYAMA,

Director, Department of Bacteriology II, NIID

(Taiwan)

Dr. Ho-Sheng Wu, Director, Center for Research,

Diagnostics and Vaccine Development, CDC, Taiwan

13:00-13:20

“Genetic relationship of vector mosquitoes and the vector-borne pathogens between Taiwan and Japan: Avian Plasmodium parasites found from mosquitoes in Taiwan and Japan”

Dr Yoshio TSUDA, Chief, Laboratory of Taxonomy and Ecology,

Department of Medical Entomology, NIID

13:20-13:40

“Characterization of Japanese encephalitis viruses isolated in Japan”

Dr Shigeru TAJIMA, Senior Research Scientist, Department of Virology I, NIID

13:40-14:00

“Genetic relationship of vector mosquitoes and the vector-borne pathogens between Taiwan and Japan with emphasis on Culex vishnui subgroup and Culex pipiens complex”

Dr. Hwa-Jen Teng,

Section Chief, Center for Research, Diagnostics and Vaccine Development, CDC, Taiwan

14:00-14:20

Genetic analysis of Bordetella pertussis isolates from the 2008–2010 pertussis epidemic in Japan

Dr Kazunari KAMACHI,

Chief, Laboratory for Pertussis and Endotoxin Control,

Department of Bacteriology II, NIID

14:20-14:40

“Molecular epidemiology of *Bordetella pertussis* in Taiwan”

Dr. Chuen-Sheue Chiang,

Associate Researcher, Center for Research, Diagnostics and Vaccine Development, CDC,
Taiwan

14:40-15:00

“Molecular detection of drug resistant *M. leprae* and genotyping of *M. leprae*”

Dr Masanori KAI, Chief, Laboratory of Therapeutic Research and Drug Resistance,
Leprosy Research Center, NIID

15:00-15:20

“Surveillance and diagnosis of leprosy in Taiwan”

Dr. Ruwen Jou,

Researcher, Center for Research, Diagnostics and Vaccine Development, CDC, Taiwan

15:20-15:40 Coffee Break

Session 6: “Cooperative Project Reports”(II)

Co-Chairs

(Japan)

Dr Manabu ATO,

Director, Department of Immunology, NIID

(Taiwan)

Dr. Ho-Sheng Wu, Director, Center for Research,

Diagnostics and Vaccine Development, CDC, Taiwan

15:40-16:00

“Development of diagnostic methods for brucellosis - Sero-epidemiology of *Brucella canis* infection in dogs in Japan”

Dr Koichi IMAOKA, Chief, Laboratory of Reservoir Control of Zoonoses,
Department of Veterinary Science, NIID

16:00-16:20

“Molecular and serological characterization of *Leptospira interrogans* isolated in Asian countries”

Dr Nobuo KOIZUMI, Senior Research Scientist, Department of Bacteriology I, NIID

16:20-16:40

“Development of diagnostic methods for Leptospirosis and surveillance of canine Brucellosis in Taiwan”

Dr. Jung-Jung Mu,

Associate Researcher, Center for Research, Diagnostics and Vaccine Development, CDC, Taiwan

16:40-17:00

“Development of a novel norovirus RT-PCR amplification system corresponding to a consensus norovirus nomenclature 2013”

Dr YoungBin Park, Research Scientist, Department of Virology II, NIID

17:00-17:20

“Norovirus GII.4 new variant and epidemic surveillance in 2012-2013 NoV season”

Ms. Fang-Tzy Wu,

Technical Specialist, Center for Research, Diagnostics and Vaccine Development, CDC, Taiwan

17:20-17:40

“Functional analysis of the AIG1 family proteins that were originally identified as virulence related genes in comparative genomic analysis”

Dr Kumiko TSUKUI, Senior Research Scientist, Department of Parasitology, NIID

17:40-18:00

“Molecular differentiation of Entamoeba species in suspected amoebiasis patients and the drug effects of paromomycin”

Dr. Dar-Der Ji,

Associate Researcher, Center for Research, Diagnostics and Vaccine Development, CDC, Taiwan

Closing Session

プロジェクト 1 : 中国

厚生労働科学研究費補助金

平成 25 年度 新型インフルエンザ等新興・再興感染症研究事業 (アジア指定研究)

アジアの感染症担当研究機関とのラボラトリーネットワークの促進と共同研究体制の強化に関する研究

Epidemiology of HFMD and genetic characterization of HEV71 and CVA16

手足口病の疫学とエンテロウイルス 71 およびコクサッキーウイルス A16 の遺伝子解析

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|--------|------------|---|
| 研究分担者： | 清水博之 | 国立感染症研究所 ウイルス第二部 |
| 研究分担者： | Xu Wenbo | Chinese Center for Disease Control and Prevention |
| 研究協力者： | Zhang Yong | Chinese Center for Disease Control and Prevention |

研究要旨

中国本土では、2008 年以来、多数の死亡例を含む手足口病あるいはエンテロウイルス 71 (EV71) 感染症の流行が報告されている。2010 年には、中国全土で 900 例以上の手足口病死亡例が発生し、公衆衛生上の大きな問題となった。中国 CDC および感染研ウイルス第二部とのあいだの疫学および実験室診断技術に関する情報共有体制を基盤として、中国で伝播している EV71 分離株の分子疫学的解析を行ったところ、多くの EV71 分離株が、中国本土固有の遺伝子型 C4 に属することが明らかとなった。中国で検出される EV71 株のほとんどすべては遺伝子型 C4 であるが、PSGL-1 受容体特異性や抗原性の変化に関与するカプシド VP1 アミノ酸の一部 (VP1-145 等) は、高度のアミノ酸多様性を有していた。EV71 遺伝子型に反映されない少数のカプシドアミノ酸変異により、EV71 のウイルス学的性状が大きく変化することが示唆された。

A. 研究目的

手足口病は、発疹を特徴とした発熱性疾患で、予後の良い一般的なエンテロウイルス感染症のうちの 1 つである。しかし、1990 年代後半以降、とくに東アジア地域で、エンテロウイルス 71 (EV71) による小児の急性死症例を含む重症エンテロウイルス感染症の大規模な流行が多発し、大きな社会問題となっている。1990 年代後半には、マレーシアおよび台湾で EV71 脳炎による多数の死亡例を伴う大規模な手足口病流行が発生し、2000 年代に入ってから、シンガポール、オーストラリア、香港、ベトナム、日本等アジア各国で、EV71 等による手足口病流行が報告されている。中国本土では、2008 年に手足口病の大流行が発生し、126 例の死亡例が報告された。重症例・死亡例の多くで EV71 が検出されており、重症例の臨床像は、台湾等における EV71 急性脳炎症例と類似していた。中国本土では、その後も、重症例を伴う手足口病流行が継続し、2009 年および 2010 年には、それぞれ、353 例および 905 例の死亡例が報告されており、公衆衛生上の大きな問題となっている。

EV71 の伝播様態を解析するため、また、強い神経病原

性を有する特定の遺伝子型の EV71 が伝播している可能性を検討するため、EV71 分離株の分子系統学的解析が進められている。カプシド VP1 領域の塩基配列をもとにした分子系統解析によると、近年、東アジア地域で分離された EV71 は、すべての分離株が、2 種類の遺伝子型である genogroup B および genogroup C に大きく分かれ、さらに B1～B5 および C1～C5 に細分類される。1990 年代後半以降、おもに、B3 および B4、C1 および C2 が、東アジアの多くの地域で分離されており、1997 年のマレーシア、1998 年の台湾における EV71 脳炎をともなう大規模な手足口病流行では、それぞれ、B3 および C2 が主要な流行株であった。中国の手足口病重症例からは遺伝子型 C4 が検出され、2008 年以降の中国の EV71 株は、ほとんど C4 型であるとされているが、詳細については、引き続き解析が必要とされる。

東アジアの多くの地域からは、多様な遺伝子型を有し、かつ、他の地域で分離されるウイルスと分子疫学的関連性の高い EV71 が多く分離されている。EV71 分離株の分子系統解析によると、特定の EV71 遺伝子型と疾患の重篤化との明確な関連性は認められていないが、多数の重症例・死亡例を伴う大規模な手足口病流行が発生している中国