4\textsuperscript{th} International Workshop on the Molecular Pathogenesis of Marek’s Disease Virus (MDV)

August 5 – 8, 2006,
Clayton Hall Conference Center,
University of Delaware

Meeting Schedule

Saturday, Aug. 5, 2006
2:00 – 6:00 PM: Arrival, Check-in and Registration of Participants
7:00 - 10:00 PM: Welcome Reception: Clayton Hall

Sunday, Aug. 6, 2006

7:00 AM Registration open, Continental Buffet
8:00 AM Opening of Meeting and Introductory Remarks
Robin W. Morgan

8:15 – 10:15 \textbf{SCIENTIFIC SESSION 1: Molecular Pathogenesis}

8:15 – 9:15 \textbf{Keynote Address (Introduced by Robin Morgan)}
\textit{Infection and Spread of PRV in Neurons}
Lynn W. Enquist, Princeton University

9:15 – 10:15 \textbf{Research Reports: 15 min each}
(Session Chairs: Irit Davidson and Klaus Osterrieder)

- \textit{Characterization of MDV LORF4 and R-LORF10 in MDV-infected cells and chickens}
  Taejoong Kim, Henry Hunt and Hans Cheng

- \textit{The role of oncogenic Marek's disease virus pp38 splice variants in the up-regulation of cellular metabolic activity}
  Michael Piepenbrink, Xinhui Li, Priscilla H. O’Connell, and Karel A. Schat

- \textit{vil-8 is a potent chemotactic and survival factor for the natural target cells of MDV}
  Oren Gilad, Lindsey Demetral, Simon Cherry, Yoshihiro Izumiya, Chie Izumiya, Ricardo Hurtado, Jonathan Choi, Jeremy Kamil, Mark S. Parcells and Hsing-Jien Kung

- \textit{Putative roles for the mutations in Meq and glycoprotein L in the evolution of MDV virulence}
  Mark S. Parcells, Elizabeth Santin, Vaithilingaraja Arumugaswami, Pankaj M. Kumar, Phaedra Honltz, and Robert L. Dienglewicz

10:15 – 10:30 Break
10:30 – 12:00 **SCIENTIFIC SESSION 2: Genomic and Proteomic Analysis of MDV Infection**  
(Session Chairs: Shane Burgess and Masahiro Niikura)

10:30 – 11:00 *Molecular characterization of MD tumors with respect to clonality, loss of heterozygosity and MDV integration*

Hans H. Cheng, Henry D. Hunt, and Mary Delaney

11:00 – 11:45 **Research Reports: 15 min each**

*Polymorphisms in the long repeat regions of oncogenic and attenuated pathotypes of Marek’s disease virus 1*

Stephen J. Spatz and Robert F. Silva

*Global gene expression profiling during cytolysis infection of Marek’s disease virus: array analysis of host-pathogen interactions*

Mohammed Heidari, Marianne Heubner, Huanmin Zhang, Robert F. Silva, Stephen J. Spatz, and Dmitriy Kireev

*Analysis of tumor suppressor gene p53 in a chicken lymphoblastoid cell line derived from Marek’s disease tumor by 2-dimensional electrophoresis*

Michihiro Takagi, Midori Hironaka, Tsukasa Okada, Misao Onuma and Kazuhiko Ohashi

12:00 – 1:30 *Lunch*

1:30 – 3:15 **SCIENTIFIC SESSION 3: MDV and Cellular Small RNAs**

1:30 – 2:30 **Invited Presentation (Introduced by Joan Burnside)**

*Elucidating the small RNA component of the transcriptome*

Pamela J. Green, Delaware Biotechnology Institute

2:30 – 3:15 **Research Reports: 15 min each**  
(Session Chairs: Hsing-Jien Kung and Venugopal Nair)

*Marek’s disease virus encodes microRNAs flanking the meq oncogene*

Robin W. Morgan, Erin Bernberg, Amy Anderson, Cheng Lu, Blake Meyers, Pam Green, Neeta Jain, Grace Isaacs and Joan Burnside

*Identification of microRNAs of Marek’s disease virus*

Yongxiu Yao, Charles Lawrie and Venugopal Nair
Small RNA cloning and expression in uninfected and MDV-infected chick embryo fibroblasts
Erin Bernberg, Joan Burnside, Amy Anderson, Cheng Lu, Neeta Jain, Blake Meyers, Pam Green and Robin W. Morgan

3:15 – 3:30  Break

3:30 – 5:00  SCIENTIFIC SESSION 4: Factors Affecting MDV Pathogenesis
(Session Chairs: John Dunn and Mark Parcells)

3:30 – 4:00  Evaluation of Marek’s Disease Vaccine Failures; Role of Vaccine Type or Source, Methods of Administration and Field Challenge
John K. Rosenberger

4:00 – 4:45  Research Reports: 15 min each

- Multiple virus infection of chickens with Marek’s disease and chicken infectious anemia: mutual influence on their horizontal spread
  Irit Davidson, N. Artzi and I. Skoda
- Pathogenesis of MDV in the eye: neoplasia or autoimmunity?
  Isabel M. Gimeno, Robert F. Silva
- Molecular characterization of a Marek’s disease virus recombinant field strain with an insert of reticuloendotheliosis virus LTR
  Zhizhong Cui, G. Zhuang, and Z. Zhang

5:00 - 7:00  Dinner on Your Own at a Local Establishment

Café Gelato, Deer Park Tavern, Grotto Pizza, Iron Hill Brewery, Klondike Kates, The Crab Trap, etc. within easy walking distance

7:00 – 9:00  Poster and Discussion Session
Clayton Hall (refreshments provided)

Poster Abstracts
Monday, Aug. 7, 2006

7:00 AM  Registration open, Continental Buffet

8:00 – 10:30  SCIENTIFIC SESSION 5:
Viral snRNPs and the Molecular Biology of Meq
(Session Chairs: Henry Hunt and Venugopal Nair)

8:00 – 9:00  Invited Presentation (Introduced by Robin Morgan)
Viral snRNPs: probing nuclear events in gene expression
Joan Steitz, Yale University

9:00 – 9:30  Transcriptional regulation of oncogenic herpesvirus:
the many faces of Meq
Hsing-Jien Kung

9:30 – 10:30  Research Reports: 15 min each

Mutations in the dimerization domain of Marek’s disease virus encoded Meq protein results in loss of T-cell transformation
Paulette Suchodolski, Blanca Lupiani, and Sanjay Reddy

Meq isoform and MDV pathotype
Pankaj M. Kumar, Phaedra Hontz, and Mark S. Parcells

Analysis of transcriptional activities by the Meq proteins with highly virulence Marek’s disease virus strains
Shiro Murata, Tsukasa Okada, Rika Kano, Yuko Hayashi, Satoru Konnai, Misao Onuma, and Kazuhiko Ohashi

Characterization of the Meq variants termed L-Meq and S-Meq derived from Marek’s disease lymphoblastoid cell lines
Tsukasa Okada, Michihiro Takagi, Shiro Murata, Rika Kanol, Yuko Hayashi, Satoru Konnai, Misao Onuma, and Kazuhiko Ohashi

10:30 – 10:45  Break

10:45 – 12:00  SCIENTIFIC SESSION 6:
Functional Analysis of Other MDV Genes
(Session Chairs: Hans Cheng and Vladimir Zelnik)

10:45 – 11:15  Marek’s disease pathogenesis:
Further insights into the functions of viral genes
Venugopal Nair

11:15 – 12:15  Research Reports: 15 min each

Comparison of the requirement of glycoprotein genes of herpesvirus of turkeys and Marek’s disease viruses
Lawrence Petherbridge, Yuguang Zhao, Lorraine Smith, Susan Baigent and Venugopal Nair
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12:15 – 1:30  
**Lunch**

1:30 – 3:15  
**SCIENTIFIC SESSION 7: Herpesvirus-host Cell Interactions**  
(Session Chairs: Erin Bernberg and Ton Schat)

1:30 – 2:30  
**Invited Presentation (Introduced by Hsing-Jien Kung)**  
Insights into the Function of the Essential EBV Nuclear Antigen EBNA3C.  
Erle Robertson, University of Pennsylvania  

2:30 – 3:45  
**Research Reports: 15 min each**

*Modeling the functional genome of neoplastic transformation in Marek’s disease*  
Shane C. Burgess, J. J. Buza, and L A. Shack  

*The ups and downs of MHC class I expression and Marek’s disease*  
Henry D. Hunt  

*Examination of cytokine gene expression in vaccine-induced protection against Marek’s disease*  
Mohamed Gaizal Abdul-Careem, B. D. Hunter, H. R. Haghighi, P. Parvizi, N. Thanthrige, S. Sharif  

*The Threshold of Genetic Susceptibility to Marek’s Disease*  
Huanmin M. Zhang, John R. Dunn, Mohammed Heidari, Richard L. Witter, G. B. Kulkarni, and Larry D. Bacon  

*Chicken NK-lysin and lipopolysaccharide-induced TNF-a factor (LITAF): cloning and functional characterization*  
Hyun S. Lillehoj, Yeong H. Hong, Rami A. Dalloul, and Sung H. Lee
3:45 – 4:00  
**Break**

3:45 – 5:00  
**SCIENTIFIC SESSION 8:  Manipulation of the MDV Genome**  
(Session Chairs: Sanjay Reddy and Stephen Spatz)

3:45 – 4:15  
*Six years of infectious virus clones – Have we come any nearer to solving the mysteries of Marek’s disease?*
Klaus Osterrieder

4:15 – 5:00  
**Research Reports: 15 min each**

- *Oncogenicity of a very virulent Marek’s disease virus cloned as bacterial artificial chromosomes*  
  Lorraine P. Smith, Susan J. Baigent, Lawrence J. Petherbridge, Venugopal K. Nair

- *Infectious bacterial artificial chromosome clones of Marek’s disease virus possessing the complete viral genome derived from MD5 cosmid clones*  
  Masahiro Niikura, Jerry Dodgson, Robert F. Silva, and Hans H. Cheng

- *Purification of MDV-chicken protein complexes using molecularly cloned and tagged MDV-BACs*  
  Kyle S. MacLea, and Hans H. Cheng

6:15  
*Leave for Banquet*

7:00 – 11:00 PM  
**Banquet at Longwood Gardens**  
*Cocktails, Banquet and Tour of Gardens*
Tuesday, August 8, 2006

7:00 AM  Registration open, Continental Buffet

8:30 – 9:30  SCIENTIFIC SESSION 9:  
Diagnosis and Pathotyping of MDV Field Strains  
(Session Chairs: Isabel Gimeno and Carl Schmidt)

Research Reports: 15 min each

Methods to distinguish selected serotype 1 MDV in dual-infected chickens

Application of the “best-fit” pathotyping assay for evaluation of Russian isolates of Marek’s disease virus
Ekaterina Dudnikova, Svetlana Norkina, Anatoly Vlasov, Anna Slobodchuk, Lucy F. Lee, and Richard L. Witter

Isolation and identification of a field isolate of Marek’s disease virus with acute oncogenicity
Ping Wei, Tian-rong Zuo, Zi-yi Zhao, Xin-xian Wei, Ya Li

Development of ELISA assay method for measurement of antibodies to Marek’s disease virus in chicken serum
Vladimir Zelnik, Genadij Dzhulardov, Andrea Eschbach, and Dierk E. Rebeski

9:30 – 9:45  Break

9:45 – 11:15  SCIENTIFIC SESSION 10:  
Control of Marek’s Disease  
(Session Chairs: Paul Sondermeijer and Dick Witter)

9:45 – 10:15  Current status of recombinant Marek’s disease vaccines for control of future outbreaks
Lucy F. Lee, Robert F. Silva, and Sanjay M. Reddy

Research Reports: 15 min each

The MDV shedder challenge model in the US
Mark S. Parcells, Pankaj M. Kumar, Phaedra Hontz, Erin Bernberg, Amy S. Anderson, Grace Isaacs, Robin W. Morgan, Sandra S. Cloud, and John K. Rosenberger

Evaluation of the MDV shedder challenge model using Hungarian very virulent Marek’s disease virus
Csába N. Dren, Csába Számadó, and Zoltán Kmojathy

Status of Marek’s disease in Nepal
Adarsha Pradhan, Upendra Man Sing, and Madhav Acharya
Construction and characterization of a novel avian herpesvirus chimera
Stephanie Cook, Joan Schrader, and Gary Petersen

11:15 – 12:00: Meeting wrap-up and directed discussion
Evolving Control Methods for an Evolving Pathogen
Panel of Industry Representatives and Academic Researchers

12:00 noon: Meeting Closing

12:00 – 1:00 Lunch

1:00 – 3:00 Guided tours of Delaware Biotechnology Institute and Allen Laboratory

Removal of Posters

Wednesday, August 9, 2006

Departure of remaining attendees
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