

**Chinese Society of Comparative Pathology**

中華民國比較病理學會

第 88 次比較病理學研討會

肺臟及呼吸系統疾病病理專題



主辦單位

**Chinese Society of Comparative Pathology**

中華民國比較病理學會

國立臺灣大學獸醫專業學院

中華民國 112 年 12 月 9 日 (December 9, 2023)

# SCHEDULE

## 88<sup>th</sup> MEETING OF COMPARATIVE PATHOLOGY

中華民國比較病理學會 第 88 次比較病理學研討會

### 肺臟及呼吸系統疾病 病理病例討論

時間：112 年 12 月 9 日（星期六）

地點：國立台灣大學 獸醫專業學院 獸醫三館地下一樓會議室

電話：02-33663873

Time (時間)	Schedule (議程)		Moderator (主持)
8:30~9:00	Registration (報到)		
9:00~10:00	專題演講	主講：蔡文銓 三軍總醫院 病理部外科病理科主任 題目：Cancer immunotherapy and PD-L1 checkpoint pathway in non-small cell lung cancer	張俊梁 理事長
10:00~10:30	Case 593	<b>Shih, Chia-Wen (施洽雯), MD, MS<sup>1</sup>; Lin, Chih-Ming (林志銘), MD<sup>2</sup></b> <sup>1</sup> Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院 病理科) <sup>2</sup> Department of Chest Surgery, Lotung Poh-Ai Hospital (羅東博愛醫院胸腔外科) 題目：Minute pulmonary meningotheelial-like nodules	張晏禎 秘書長
10:30~11:00	Coffee Break (合照)		
11:00~12:00	專題演講	主講：陳慧文 國立台灣大學 獸醫專業學院 教授 題目：Poultry respiratory viral infections and laboratory models	張俊梁 理事長
12:00~13:00	午餐 及 第十屆第三次理監事會議		
13:00~13:30	Case 594	<b>Chang, Junn-Liang (張俊梁), MD, PhD<sup>1</sup>; Liu, Kuang-Ting (劉光庭), MT, MS<sup>1</sup>; Chang, Yueh-Ching (張月清) MT, MS<sup>1</sup>; Lin, Yu-Chieh (林鈺傑), MD<sup>1</sup>; Wu, Meng-Feng (吳孟峰), MD<sup>2</sup></b> <sup>1</sup> Department of Pathology and Laboratory Medicine, Taoyuan Armed Forces General Hospital, Taoyuan City, Taiwan. (國軍桃園總醫院 病理檢驗部) <sup>2</sup> Department of Surgery, Division of Cardiothoracic Surgery, Taoyuan Armed Forces General Hospital, Taoyuan City, Taiwan. (國軍桃園總醫院 胸腔外科) 題目：An unusually malignant pleural mesothelioma presenting as empyema in an adult male: A case report	廖俊旺 監事
13:30~14:00	Case 595	<b>Luo, I-Chi (羅怡琪), DVM, MS<sup>1</sup>; Jiang, Jia-Wei (江家瑋) DVM, MS<sup>1</sup>, Tsao, Wen-Tien (曹文恬), DVM, MS<sup>1</sup></b> <sup>1</sup> HOPE Veterinary Pathology Diagnostic Center (霍普獸醫病理診斷中心) 題目：Cryptococcosis in a cat	彭奕仁 理事

14:00~14:30	Coffee Break		
14:30~15:00	Case 596	<p><b>Hui-Ping Hsiao (蕭慧萍)<sup>1#</sup>, Ching-Jung Wang (王慶蓉)<sup>1#</sup>, Yu-Hsuan Liu (劉又瑄)<sup>2</sup>, Chia-Yu Chang (張佳瑜)<sup>1</sup>, Hue-Ying Chiou (邱慧英)<sup>2,3</sup></b></p> <p><sup>1</sup>Department of Veterinary Medicine, College of Veterinary Medicine, National Chung Hsing University, Taichung, Taiwan (國立中興大學獸醫系)</p> <p><sup>2</sup>Animal Disease Diagnostic Center, National Chung Hsing University, Taichung, Taiwan (國立中興大學動物疾病診斷中心)</p> <p><sup>3</sup>Graduate Institute of Veterinary Pathobiology, College of Veterinary Medicine, National Chung Hsing University, Taichung, Taiwan (國立中興大學獸醫病理研究所)</p> <p>題目：Porcine Respiratory Disease Complex (PRDC) in Nursery Pigs</p>	黃威翔 理事
15:00~15:30	Case 597	<p><b>Wang, Han-Yang (王漢揚), DVM<sup>1</sup>; Chang, Yen-Chen (張晏禎), DVM, PhD<sup>1</sup></b></p> <p><sup>1</sup> Graduate Institute of Molecular and Comparative Pathobiology, School of Veterinary Medicine, National Taiwan University (國立台灣大學獸醫專業學院分子暨比較病理生物學研究所)</p> <p>題目：bronchial carcinoma in a cat</p>	賴銘淙 理事
15:30~16:30	General Discussion (綜合討論)		張俊梁 理事長

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# Special Lecture I (專題演講一)

## Cancer immunotherapy and PD-L1 checkpoint pathway in non-small cell lung cancer

蔡文銓 醫師

三軍總醫院 病理部外科病理科主任

根據美國癌症協會的治療指引，晚期非小細胞肺癌的病患，大多無法進行根治性手術，僅能使用腫瘤抑制藥物進行治療，尚未有標靶治療藥物研發的年代，多半只能選用副作用極大的化學治療藥物與附加性的放射治療，不僅藥物毒性極高，對於腫瘤的抑制效果卻因人而異，近 20 年間，標靶治療在肺部非小細胞癌的治療已有長足的進步，包括亞洲人比率較高的肺腺癌，目前已有包括 EGFR (epidermal growth factor receptor)、ALK (anaplastic lymphoma kinase), K-ras 與 BRAF 等癌症基因已被證實，並且已有相關的治療藥物應用於臨床病患，因此癌症基因的檢測快速性與準確性已成為標靶治療用藥選擇的關鍵，另外，2018 年所發表的諾貝爾生物學或醫學獎得主本庶佑教授，發現 PD1/PD-L1 免疫治療在腫瘤醫學的應用，精準醫療已躍升癌症治療的主角，然而，無論是基因標靶或是免疫治療，上述癌症因子在腫瘤細胞的表現都將扮演成功與否的重要議題。根據研究指出，PD-1 是 T 淋巴細胞上的接受體，PD-L1 則是腫瘤細胞或是抗原呈現細胞的表現抗原，當 PD-1 與 PD-L1 結合時，將使帶有 CD8-T 淋巴細胞喪失毒殺腫瘤細胞的特性，因此當檢測出腫瘤細胞表現 PD-L1 時，就必須使用 anti-PD-1 或是 anti-PD-L1 的藥物加以阻斷，使原先喪失毒殺能力的 CD8-T 淋巴細胞恢復原有的功能，藉以達到腫瘤抑制的效果。

目前已知 PD-1/PD-L1 的檢測種類繁多，其中最常用的檢測方式就是利用腫瘤組織的免疫組織化學染色(Immunohistochemical stain, 簡稱 IHC)。IHC 的好處包括操作方式簡易、縮短檢測時間，同時花費也較為便宜。因此已上市 anti-PD-1 或是 anti-PD-L1 的藥物多半都會對應 IHC 的檢測結果，藉以提高治療成效，然而目前已研發完成的 PD-L1 的檢測抗體高達五種，各自有對應的藥物，判讀的方式與條件均不同，所使用的染色平台也不盡相同，往往造成病理醫師判讀上的困難。此外，PD-L1 的有效判讀最低限度是至少有 50-100 個腫瘤細胞，針對晚期肺癌的病患，大多伴隨著嚴重的臨床症狀，取得腫瘤組織切片已屬不易，經過必要的檢體處理與初步診斷後，往往已消耗掉部分的組織，面臨 PD-L1 IHC 檢測時，腫瘤細胞經常呈現不足的情形，患者必須接受再次切片的風險或是放棄免疫治療的機會。另一方面，根據文獻說明，腫瘤異質性(tumor heterogeneity)已成為 PD-L1 的判讀結果與治療成效不一致的重要課題，組織切片僅能顯現出某一部份的腫瘤組織，卻無法代表整個腫瘤大多數細胞 PD-L1 的表現。不僅減低患者的治療效果，也延誤採用更有效的治療方案，此時若能建立更精準的病理檢測平台，可利用少量的腫瘤細胞型態，推測整個腫瘤表現 PD-L1 的機會與程度，提供臨床醫師精準而快速的檢測報告，相信是解決目前困境的一大福音。



蔡文銓

Wen-Chiuan Tsai

**學歷：**國防醫學院醫學系醫學士、國立台北科技大學工程科技研究所生化與生醫工程組博士

**現職：**三軍總醫院病理部外科病理科主任、教育部部定教授、國防醫學院病理學科專任教授、國立清華大學生命科學暨醫學院合聘教授

**論文選錄：**

1. Tsai YL, Chen Y, Chen YC, Tsai WC\*. KDELC2 Upregulates Glioblastoma Angiogenesis via Reactive Oxygen Species Activation and Tumor-Associated Macrophage Proliferation. *Antioxidants (Basel)*. 2023;12(4):923.
2. Lai CR, Tsai YL, Tsai WC, Chen TM, Chang HH, Changchien CY, Wu ST, Wang HH, Chen Y, Lin YH. Farnesoid X Receptor Overexpression Decreases the Migration, Invasion and Angiogenesis of Human Bladder Cancers via AMPK Activation and Cholesterol Biosynthesis Inhibition. *Cancers (Basel)*. 2022;14(18):4398.
3. Tsai CL, Changchien CY, Chen Y, Lai CR, Chen TM, Chang HH, Tsai WC, Tsai YL, Tsai HC, Lin HY, Wang CY, Shen MS, Lin YH. Survival Benefit of Statin with Anti-Angiogenesis Efficacy in Lung Cancer-Associated Pleural Fluid through FXR Modulation. *Cancers (Basel)*. 2022;14(11):2765.
4. Lai CR, Wang HH, Chang HH, Tsai YL, Tsai WC, Lee CR, Changchien CY, Cheng YC, Wu ST, Chen Y. Enhancement of Farnesoid X Receptor Inhibits Migration, Adhesion and Angiogenesis through Proteasome Degradation and VEGF Reduction in Bladder Cancers. *Int J Mol Sci*. 2022;23(9):5259.
5. Chen HW, Lin MC, Wu PR, Chang YC, Weng SS, Tsai WC. Prostaglandin F2 receptor inhibitor overexpression predicts advanced who grades and adverse prognosis in human glioma tissue. *Chin J Physiol*. 2022;65(2):93-102.
6. Tsai CL, Changchien CY, Chen Y, Chang HH, Tsai WC, Wang YW, Chou KC, Chiang MH, Tsai YL, Tsai HC, Wang CY, Shen MS, Cheng LT, Lin HY, Yang TB, Chian CF. Accelerated Wound Healing and Keratinocyte Proliferation through PI3K/Akt/pS6 and VEGFR2 Signaling by Topical Use of Pleural Fluid. *Cells*. 2022;11(5):817.
7. Lin CH, Chang HH, Lai CR, Wang HH, Tsai WC, Tsai YL, Changchien CY, Cheng YC, Wu ST, Chen Y. Fatty Acid Binding Protein 6 Inhibition Decreases Cell Cycle Progression, Migration and Autophagy in Bladder Cancers. *Int J Mol Sci*. 2022;23(4):2154.

## **Special Lecture II (專題演講二)**

### **Poultry respiratory viral infections and laboratory models**

**陳慧文教授**

國立台灣大學獸醫專業學院獸醫系

This presentation talks about common breathing problems caused by viruses in poultry like chickens, and how scientists create small-scale models in the lab to understand these issues better. By focusing on major pathogens like avian influenza and infectious bronchitis virus, we explain how we make models that mimic real infections. These models help us see how the disease spreads, how the body reacts, and how different treatments or vaccines can help. By looking into these mini scenarios, we can gather a lot of helpful information. This way, we can come up with better solutions to protect poultry from these respiratory viral diseases, making them healthier and safer. Through simple lab models and careful studies, we take steps towards solving big health problems for poultry, which is good for both the birds and the people who care for them.



陳慧文

Hui-Wen Chen

現職：國立臺灣大學獸醫學系教授、國立臺灣大學實驗動物資源中心主任

學歷：國立臺灣大學獸醫學博士

經歷：美國加州大學聖地牙哥分校博士後、美國拉霍亞免疫研究所博士後、日本東京大學獸醫學系客座副教授、中央研究院生醫所訪問學者

論文選錄：

1. Tsai HH, Huang PH, Lin LCW, Yao BY, Liao WT, Pai CH, Liu YH, **Chen HW\***, Hu CMJ\*. Lymph node follicle-targeting STING agonist nanoshells enable single-shot M2e vaccination for broad and durable influenza protection. *Advanced Science* doi.org/10.1002/advs.202206521, 2023.
2. Lin TW, Huang PH, Liao BH, Chao TL, Tsai YM, Chang SC, Chang SY, **Chen HW\***. Tag-free SARS-CoV-2 receptor binding domain (RBD), but not C-terminal tagged SARS-CoV-2 RBD, induces a rapid and potent neutralizing antibody response. *Vaccines* doi.org/10.3390/vaccines10111839, 2022.
3. Huang PH, Tsai HH, Liao BH, Lin YL, Jan JT, Tao MH, Chou YC, Hu CMJ, **Chen HW\***. Neutralizing antibody response elicited by SARS-CoV-2 receptor-binding domain. *Human Vaccines & Immunotherapeutics* doi.org/10.1080/21645515.2020.1814098, 2020.
4. Lin SY, Yao BY, Hu CMJ, **Chen HW\***. Induction of robust immune responses by CpG-ODN loaded hollow polymeric nanoparticles for antiviral and vaccine applications in chickens. *International Journal of Nanomedicine* doi.org/10.2147/IJN.S241492, 2020.
5. Lin LCW, Huang CY, Yao BY, Lin JC, Agrawal A, Algaissi A, Peng BH, Liu YH, Huang PH, Juang RH, Chang YC, Tseng CT\*, **Chen HW\***, Hu CMJ\*. Viromimetic STING agonist-loaded hollow polymeric nanoparticles for safe and effective vaccination against Middle East respiratory syndrome coronavirus. *Advanced Functional Materials* doi:10.1002/adfm.201807616, 2019.



## Case Diagnosis

### 88<sup>th</sup> MEETING OF COMPARATIVE PATHOLOGY

中華民國比較病理學會 第 88 次比較病理學研討會

肺臟及呼吸系統疾病病理專題

民國 112 年 12 月 9 日

( 閱片網址：<http://140.120.114.107/slidecenter.php?id=539> )

Case No.	Presenter	Slide No.	Diagnosis
Case 593	施洽雯	LP19-10922	Minute pulmonary meningotheial-like nodules <a href="http://140.120.114.107/ivp_slide_view.php?id=2237">http://140.120.114.107/ivp_slide_view.php?id=2237</a>
Case 594	張俊梁	26047A	Malignant pleural mesothelioma <a href="http://140.120.114.107/ivp_slide_view.php?id=2268">http://140.120.114.107/ivp_slide_view.php?id=2268</a>
Case 595	羅怡琪	21-1888	Cryptococcosis <a href="http://140.120.114.107/ivp_slide_view.php?id=2235">http://140.120.114.107/ivp_slide_view.php?id=2235</a>
Case 596	蕭慧萍/ 王慶蓉	CM23-07003B	Porcine Respiratory Disease Complex in Nursery Pigs <a href="http://140.120.114.107/ivp_slide_view.php?id=2277">http://140.120.114.107/ivp_slide_view.php?id=2277</a>
Case 597	王漢揚	NTU2023-2344	Brochial adenocarcinoma <a href="http://140.120.114.107/ivp_slide_view.php?id=2239">http://140.120.114.107/ivp_slide_view.php?id=2239</a>

**Case Number: 593**

**Slide Number: LP19-010922**

**Slide View: [http://140.120.114.107/ivp\\_slide\\_view.php?id=2237](http://140.120.114.107/ivp_slide_view.php?id=2237)**



**施洽雯**

**Chia-wen Shih**

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Chief of the Department of Pathology, Lo-Tung Poh-Ai Hospital

**學歷：**

1975-1981 Chung-Shan Medical University.

1986-1988 Institute of Pathology, National Deference University.

**經歷：**

1983-1985 Resident of the Department of Internal Medicine, Show-Chwan Memorial Hospital.

1988-1989 Resident of the Department of Pathology, Tri-Service General Hospital.

1989-1990 Chief resident of the Department of Pathology, Chung-Shan Medical University Hospital.

1990-1993 Chief of the Department of Pathology, Chung-Shan Medical University.

1993-present Chief of the Department of Pathology, Lo-Tung Poh-Ai Hospital.

1989-1990 Lecture, Chung-Shan Medical Univaersity.

1990-1993 Associate Professor, Chung-Shan Medical Univaersity.

1995-2022 Associate Professor, Tzu Chi University.

**論文選錄：**

1. Chiang MF, Tseng TK, Shih CW, Yang TH, Wu SY. Clinical and contrast-enhanced image features in the prediction model for the detection of small hepatocellular carcinomas. *J Cancer*. 2020 Oct 18;11(24):7166-7175. doi: 10.7150/jca.47245. PMID: 33193879; PMCID: PMC7646160.
2. Tsai, Yu-Hsiang, Chia-Wen Shih, and Ching-Wen Chiang. "Nasal Glomus Tumor Presenting as Epistaxis-Case Report." *台灣耳鼻喉頭頸外科雜誌* 55.4 (2020): 214-217. airtiti Library. Web. 13 Nov. 2023. doi:10.6286/jtohn.202012\_55(4).214

Shih, Chia-Wen (施洽雯), MD, MS<sup>1</sup>, Lin, Chih-Ming (林志銘), MD<sup>2</sup>

1. Department of Pathology, Lotung Poh-Ai Hospital (羅東博愛醫院病理科)

2. Department of Chest Surgery, Lotung Poh-Ai Hospital (羅東博愛醫院胸腔外科)

## **CASE HISTORY:**

**Signalment:** 56-year-old female.

### **Clinical History:**

This 56 years old female was admitted to the ENT ward of Lotung Saint Mary's Hospital (SMH) for severe vertigo in Aug, 2019. Incidental finding of a small nodule in right lower lung by CT scan at SMH. She visited CS OPD of Lotung Poh-Ai Hospital for further evaluation. Benign lesion was suspected and regular follow up was suggested. The patient worried about the possibility of malignancy and requested for surgical treatment. Under the impression of RLL nodule, she was admitted to the CS ward for surgical resection. CT guide tattoo of the nodule was done before surgery. Wedge resection of RLL nodule was performed on 2019-9-25. The specimen was sent to the department of pathology for pathologic diagnosis. The specimen submitted consisted of a wedge resected lung tissue measuring 6.3 x 2.7 x 2.0 cm. A small tumor nodule was noted and measuring 0.6 x 0.5 x 0.5 cm. The tumor nodule was grayish-red in color and soft in consistency.

### **Clinical Pathology:**

BUN: 20 mg/dL (6-20 mg/dL), Creatinine: 0.8 mg/dL (0.6-1.1 mg/dL), Glucose: 141 mg/dL (70-100 mg/dL), Na: 132 mmol/L (135-145 mmol/L), K: 4.8 mmol/L (3.5-5.1 mmol/L), AST (GOT): 21 U/L (5-40 U/L), ALT (GPT): 38 U/L (5-40 U/L), RBC: 5/07x10<sup>6</sup>/uL (4.2-5.4x10<sup>6</sup>/uL), Hb: 11.8 gm/dL (12.0-16.0 gm/dL), Hct: 37.5 % (37-47%), Plt: 37.7 x10<sup>4</sup>/dL (15-40 x10<sup>4</sup>/dL), WBC: 14.7 x10<sup>3</sup>/uL (4.5x10<sup>3</sup>- 11.0x 10<sup>3</sup>/uL).

## **CASE RESULT:**

### **Histopathologic Findings:**

Histopathological examination revealed focal small nodule composed of proliferative lung mesenchymal cells with mild irregular size and shape, round or ovoid nuclei, indistinct nucleoli. The tumor cells arranged in swirling appearance, grow along the alveolar septa or around blood vessels. The mesenchymal cells without obvious atypia. No significant mitosis was noted. No necrosis was noted.

### **Immunohistochemistry:**

Sections of tissue specimen were subjected for immunohistochemical evaluation. On

immunohistochemical analysis, the mesenchymal cells were positive for Vimentin and EMA and negative for CK, TTF-1, CD34, CD31, Chromogranin A and Synaptophysin.

**Differential diagnosis:**

1. Atypical adenomatous hyperplasia (AAH).
2. Adenocarcinoma in situ (AIS).
3. Carcinoid.
4. Minute pulmonary meningothelial-like nodule (MPMN)

**Diagnosis:** Minute pulmonary meningothelial-like nodule (MPMN)

**Comments:**

Minute pulmonary meningothelial-like nodules (MPMNs) are rare, small benign lesions in the lungs that are usually found incidentally in surgical specimens and in routine pathology examinations of autopsy specimens. In 1958 Heppleston described a peripherally situated lung tumor measuring 4 cm x 3 cm x 3 cm. which histologically resembled a carotid-body tumor. Korn et al. in 1960 described multiple minute pulmonary tumors which they had found in 12 out of 3,635 necropsies. They believed that the tumors were derived from chemoreceptor tissue. Although the nature of the tumors described by Korn et al. is doubtful, it seems more likely that they are hyperplastic or hamartomatous lesions of chemoreceptor tissue rather than true neoplasms (Spencer, 1962). The tumor described as a non-chromaffin paraganglioma of lung by Mostecky, Lichtenberg, and Kalus (1966) differed from those other tumors in that the cells contained argentaffin granules.

The lesions have similar histological, ultrastructural, and immunohistochemical features as meningiomas, including pleural or pulmonary meningiomas, an association between these two conditions has been suggested. However, genetic analysis of these structures indicate a reactive rather than a neoplastic origin. Some authors have reported that MPMNs lack mutational damage and suggested that they might represent the transition between reactive and neoplastic proliferation. In 1988, Gaffey et al first coined these lesions as MPMNs. Therefore, the name of MPMNs was generally accepted in place of so-called pulmonary chemodectomas and appeared as “minute meningothelial nodule” in the third edition of the World Health Organization International Histological Classification of Tumors.

The rate of detecting MPMNs varies between 0.3% and 9.5% depending on the source of the lung tissue examined (autopsy or surgical resection specimens). Single lesion was defined as MPMN, whereas multiple nodules were termed diffuse pulmonary meningotheliomatosis or MPMN-omatosis.

MPMN has improved with the popularization of chest thin-section computed tomography (CT) in lung cancer screening. The typical CT presentation of MPMN is microscopic nodules ranging from 0.2-0.5 cm in diameter with ground glass-like changes; a small number of MPMNs also present with diffuse thin-walled cystic cavities on CT. MPMNs involve the upper lung lobes more often than lower lobes. A study reported that MPMNs are found three times more often in the right lung than in

the left. It is difficult to distinguish MPMNs from lung carcinoma in situ or microinvasive adenocarcinoma on imaging; thus, intraoperative or postoperative pathological examination and immunophenotypic identification are required to confirm the diagnosis. Many diseases appear similar to diffuse micronodules, including multiple adenocarcinomas, pulmonary Langerhans cell histiocytosis (PLCH), and multifocal micronodular pneumocyte hyperplasia (MMPH). However, PLCH usually occurs in young men with a history of smoking, and PLCH lesions are mostly located in the upper lobe of the bilateral lungs and generally do not involve the pleura, which does not match the CT findings of MMPH. MMPH occurs in patients with tuberous sclerosis.

MPMNs are commonly asymptomatic and mostly occur in women, aged between 16 and 94 years, and are most common in the 6th decade of life. MPMNs have been reported in association with pulmonary thromboembolism, respiratory bronchiolitis-associated interstitial lung disease, severe cardiac disease, desquamative interstitial pneumonia, atypical adenomatous hyperplasia (AAH) and pulmonary adenocarcinoma.

Microscopically, under a low-power microscope, single or multiple lesions could be observed in one field of view, and the lesions could be outlined so that they appeared with clear boundaries on the image. Nodules could be close to the pleura but will not invade the pleura. At high magnification, round, oval, or fusiform meningeal epithelial cells could be seen in a nested distribution. The lesion cells were round or ovoid and uniform in size. The cell morphology was relatively normal, without atypia. The cytoplasm was abundant, and the cell boundary was unclear. The nucleus was light stained, and delicate chromatin was evenly distributed. The lesion originated from the alveolar interstitium rather than the alveolar epithelial tissue. Therefore, the thickening of the alveolar wall as well as the air in the alveolar cavity caused some of the nodules to appear with a cyst-like morphology.

Immunohistochemical staining was positive for vimentin, progesterone receptor, EMA and CD56 and negative for cytokeratin, TTF-1, NapsinA, ChromograninA, Synaptophysin, CD31 and CD34. Niho et al. reported that half of MPMNs showed immunoreactivity for the progesterone receptor suggesting a role of sex-steroid hormones in the pathogenesis.

The pathomorphology of MPMNs need to be differentiated from meningiomas, bronchial adenomas, atypical adenomatous hyperplasia, carcinoid and adenocarcinomas in situ. MPMNs are typically characterized by proliferative lung mesenchymal cells with clear borders, usually without an envelope, and homogeneous round or ovoid swirling arrangements of cells that can grow along the alveolar septa or around blood vessels; these cells are without obvious atypia and resemble meningeal epithelial cells, with fine chromatin, inconspicuous nucleoli, and rare mitotic figures. Meningiomas usually form encapsulated masses with solid, nested clusters of tumor cells, usually without alveolar lumen and residual alveolar epithelial cells. Bronchial adenomas are bilayered structures formed by epithelial cells and continuously arranged basal cells: the epithelial layer is structurally diverse and can be papillary or glandular luminal cells; the cell morphology may be consistent with mucous cells, alveolar epithelial cells, or ciliated columnar epithelial cells without atypia, and exfoliated tumor cells may float in the mucus in the alveolar lumen. Adenocarcinoma in

situ is usually a monolayer arrangement with no basal cells, atypia of the cells, variable sizes of nuclei, and visible mitotic figures.

The clinical relevance of MPMNs is still unclear and, to date, there is no consensus on what should be the most appropriate management or follow-up for these lesions. Although curative surgical excision is sometimes needed, MPMNs usually run a benign course, and conservative treatment is favorable.

According to the previous reports, the prognosis is excellent with no clinical or surgical treatment recommended. However, Niho et al. reported that MPMNs were found in 10% patients with lung adenocarcinoma. In Mizutani et al.'s study, MPMNs were found more often in patients with malignant pulmonary tumors than in those with benign disease (7.3% vs. 2.5%). In particular, MPMNs were found more often in patients with lung adenocarcinoma than with other primary pulmonary malignant tumors (9.4% versus 4.5%). Based on these findings, a workup for undiagnosed malignancy and closely follow are necessary when MPMNs are discovered.

### **Conclusion:**

MPMNs are rare benign lesions in the lung that most often occur in middle-aged and elderly women. They are often multiple, usually less than 0.5 cm in diameter, usually asymptomatic and often detected by chest CT. They can occur alone or concomitant with other lung lesions. MPMNs have characteristic pathomorphology and positive immunohistochemistry for EMA, PR, CD56, and vimentin supports the diagnosis. Clinicians, radiologists, and pathologists should increase their attention to and awareness of this disease.

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**Case Number: 594**

**Slide Number: 26047A**

**Slide View: [http://140.120.114.107/ivp\\_slide\\_view.php?id=2268](http://140.120.114.107/ivp_slide_view.php?id=2268)**

**Abstract:**

Introduction

Malignant pleural mesothelioma (MPM) is a rare but aggressive cancer associated with poor prognosis from diagnosis and limited effective treatment options.

Case presentation

Herin, we report a 63-year-old male with persistent chronic cough for several months. The patient had no fever or history of asbestos exposure. The right empyema with mild pleural effusion was diagnosis by CT scan of the chest at our emergency room. He was admitted our hospital further evaluation and treatment. Subsequently, the Video-assisted thoracoscopic surgical decortication (VATS) for the management was performed. The final diagnosis with histopathological and further immunohistochemical (IHC) staining was MPM, epithelioid type. He was subsequently transferred to the Division of Hematology and Oncology to receive completely chemotherapeutic regimen with Alimta and cisplatin. One year after the surgery, he is now doing well.

Discussion

MPM is often difficult to diagnose due to its rarity and unusual histopathological features, which can lead to diagnostic pitfalls and misdiagnosis. The WHO histological classification of pleural tumors recommended a pathologic grading system for malignant pleural mesothelioma, according to the architectural, cytological features, and nuclear grading with fundamental prognostic and diagnostic value, correctly assigned in the grading system to make a differential diagnosis and avoid misdiagnosis, especially toward metastatic lesions or inflammatory reactive pleural processes.

Conclusion

Diagnosing MPM based on preoperative and imaging examination is often challenging. Thus, a review of the past history, histopathology, and immunohistochemical (IHC) evaluation plays a crucial and valuable role in the definite and differential diagnosis of this tumor type.

**Keywords:**

Malignant pleural mesothelioma, empyema, pleural effusion, video-assisted thoracoscopic surgical decortication, immunohistochemical





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## **An unusually malignant pleural mesothelioma presenting as empyema in an adult male: A case report**

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### **Case history:**

This is a 63-years-old male with chief complaints of cough for several months.

### **Clinical history:**

He had a history of hypertension with regular medical treatment several years. According to himself, cough was bothered him for several months and received the conservative treatments was prescribed. However, the symptoms were still persistent. So he visited at local medical hospital (桃園龍潭某地區醫院) for help, and was transform to our ER for further evaluation. The CT image of the chest revealed marked empyema of the right lung. By the condition above, he was admitted for further evaluation and surgical intervention treatment.

On admission, the vital signs were BT: 35.5°C, PR: 84/min, RR: 16/min, BP: 108/61 mmHg. The patient was no family history of malignancy was found. Current treatment for hypertension was noticed. He denied a history of socializing alcoholic beverages or drug abuse or addiction. He was no any drug allergies and/or adverse reactions. His occupation is not related to asbestos. He did not report any COVID-19 symptoms. There was no history of smoking, chewing betel nut, or TOCC survey (travel, occupation, cluster, contact history) in the past three months. There was no contributing family history included any relevant genetic information, malignancy, and psychosocial history.

### **Laboratory results (Clinical Pathology) and Imaging study:**

Clinical laboratory abstracted analysis included hematological complete blood count revealed mild leukocytosis with neutrophilia and normal lymphocyte count included Hgb: 15.5 g/dl (14-18), Hct: 46.1% (normal 42-52), WBC:  $7.14 \times 10^3$  u/l (normal 4.8-10.8), lymphocytes: 16.7 % (normal 19-48). The biochemistry analysis showed glucose: 122.5 mg/dL (normal 70-110). The other biochemistry and biomarker serum levels were within normal. The serological evaluations were negative, included the HIV status evaluated by enzyme-linked immunosorbent assay (ELISA) or Western blot studies; detection of hepatitis C virus (HCV) by serologic studies or polymerase chain reaction (PCR); detection of EBV and COVID-19 by PCR was negative.

The CT of the chest revealed a low attenuation lesion in the right pleural effusion, pleural thickening field and the empyema was suspected.

Subsequently, he underwent the VATS with decortication with incisional biopsy and chest tube insertion was performed by senior doctor of Cardiothoracic Surgery (CS) Division. The post-operative period was uneventful and no complication.

### **Gross Findings:**

Subsequently, a surgical diagnostic biopsy (VATS) was performed. Macroscopic examination of the multiple right pleural tissue fragments submitted with gray brown o ink in color. The largest piece measured 2 x 1.5 x 1 cm.

### **Case result:**

#### **Histopathologic Findings:**

Microscopic examination of tumor masses revealed infiltration of architectures was composed of hypercellularity, diffuse solid, and marked papillary with or without appreciable fibrovascular cores. Tumor cells composed of growing in a diffuse pattern of oval, polygonal or cuboidal epithelioid cells with the nucleus and nucleoli, eosinophilic abundant cytoplasm, hyperchromatic with occasional mitotic figures and focal multinucleated giant or bizarre cells with vacuolated cytoplasm and signet-ring appearance infiltration of the fat and pleura, and destructive skeletal muscle bundle is found. No lymphovascular invasion (LVI), perineural invasion was found.

### **Differential Diagnoses:**

1. Primary pleural neoplasm: Mesothelioma
2. Secondary/Metastatic neoplasms: Adenocarcinoma of lung, colon, pancreas, stomach, renal cell carcinoma, origin nature unknown
3. Papillary serous carcinoma: More relevant in peritoneal malignant mesothelioma.

### **Immunohistochemistry:**

Subsequent IHC staining analysis, these proliferative neoplastic cells with scattered atypical/bizarre giant cells demonstrated positive immunoreactivity for calretinin, podoplanin, WT1, and CK18, but lack CEA, CK14, TTF1, CDX2, CK7/20, PAX8, CD45 stains. The patient underwent a first line chemotherapy with cisplatin regimen.

#### **Positive stains**

Calretinin: both nuclear and cytoplasmic staining; useful to distinguish mesothelioma and lung adenocarcinoma

WT1: useful to distinguish mesothelioma from renal cell carcinoma and squamous cell carcinoma (Hum Pathol 2013;44:1)

TTF1 and Napsin A: positive in lung adenocarcinoma

PAX8: positive for tumors of Müllerian origin.

**Anatomic Diagnosis:**

1. Pleural, Rt., VATS with decortication: Malignant mesothelioma, epithelioid, grade 2.
2. Pathological TNM stage, AJCC, 8th edition: pT1NoM (correlate with clinical M).

**Follow-up and workup:**

After surgery, the patient recovered uneventfully. He also received further arrangement of the adjuvant chemotherapy with Alimta. Written informed consent was obtained from the patient for this case report. The patient has received chemotherapy since surgery and continues to be followed in the thoracic surgery outpatient clinic. One year later, the patient is currently living well.

**Discussion:**

Mesothelioma is a malignant tumor that originates in the pleura, peritoneum, pericardium and tunica vaginalis, all locations where a lining of normal mesothelial cell is present. Pleural mesothelioma is the most common type of this cancer making up for approximately 70% to 75% of all mesothelioma cases [1].

Empyema symptoms are nonspecific and may include chest pain or discomfort, fever, trouble breathing, cough, extreme exhaustion (fatigue), unexplained weight loss. Diagnosing empyema clinically includes imaging tests such as X-rays and CT scans to help your provider see if there is fluid in your pleural space. Ultrasound helps show how much fluid is in the pleural space and helps guide the collection of fluid samples. Pneumonia is the most common cause empyema. Empyema is diagnosed by listening to the lungs and doing imaging tests and blood tests. Most cases of empyema are treated with antibiotics, and a needle or surgery may be needed to drain the pus. In present case did not have pneumonia, or fever. The Pleural effusion test results also did not show the presence of too many acute inflammatory cells, so it can be ruled out that pleural hyperplasia and thickening were caused by empyema.

Over 80% of MPM cases are associated with asbestos exposure, and therefore asbestos is the major factor implicated in MPM tumorigenesis [2]. The mechanisms underlying asbestos-induced mutagenesis and alterations in gene expression are varied, and include generation of reactive oxidants, induction of chronic inflammation, and direct physical interference with mitotic structures [3].

MPM does not become symptomatic until it is advanced. Symptoms include dyspnea, chest pain, and cough as our case. Typical symptoms include shortness of breath, chest pain, weight loss, fever and fatigue. As in our case, the clinical manifestations were characteristic of empyema and pleural effusion. Pleural cancer especially if you live in an asbestos-filled area or your work environment exposes you to asbestos, in present case there is no asbestos workplace. Symptoms such as chest pain, weight loss, fatigue and fever often appear in latter stages.

Mesothelioma can be roughly divided into localized and diffuse types, but the former is extremely rare. In making a diagnosis of mesothelioma, it is important to confirm the location of tumor and the specific gross findings before histological examination. Mesothelioma can be categorized histologically as epithelioid type, sarcomatoid type, biphasic type, desmoplastic type, among others [1].

Histologic subtype is defined by tumor cell morphology. Epithelioid tumors are  $\geq 90\%$  epithelioid-shaped cells, sarcomatoid tumors are  $\geq 90\%$  spindle-shaped cells, and biphasic tumors are a combination of the two in varying proportions.

In 2021, WHO published its latest volume about thoracic tumors. Pleural diffuse mesothelioma in this issue retains the three major histological subtypes as previously described (epithelioid, sarcomatoid and biphasic) and more focus is placed on architectural patterns and cytological and stromal features [4,5,7].

It is important facts about mesothelioma pathology include mesothelioma pathology is the study of tissue or fluid samples for the presence of mesothelioma, and to look for mesothelioma biomarkers or diseased mesothelial cells. Mesothelioma in its epithelioid appearance must be distinguished from carcinomas and other epithelioid neoplasms that can infiltrate the pleura in a diffuse way, with a pseudomesotheliomatous appearance. Most commonly, these neoplasms are carcinomas, and particularly those originating from the lung, breast, ovary and gastrointestinal tract, but also kidney, prostate and pancreas malignancies can potentially give metastases to the pleura [4]. Tumors with epithelioid morphology should also be considered, particularly epithelioid vascular malignancies, epithelioid sarcoma, and melanoma [5].

Clinical and radiological features may be of some help because mesothelioma characteristically presents as multiple pleural nodules or diffuse pleural thickening; other tumors involving the pleura may mimic this growth pattern, but the finding of large or multiple lung parenchymal masses should raise concerns against a mesothelioma diagnosis [7], such as in present case. Sometimes, it could be even more difficult to discriminate between epithelioid mesothelioma and some benign processes, such as reactive mesothelial hyperplasia, particularly when it is marked in some infection or collagen vascular disease or when an invasive component in the adipose tissue or chest wall cannot be demonstrated.

It can take many forms; consequently, there are many diseases to be differentiated when the diagnosis of mesothelioma is based on histological analyses. Immunohistochemical stains are useful for making a diagnosis, but the correct combination of antibodies as positive or negative markers should be selected and a comprehensive assessment of the staining results is necessary [5,8,9].

To relying on relevant tumor marker tests and imaging examinations, the cross-multidisciplinary team for precision medicine must use the pathological morphology of surgical resection to make relevant differential diagnosis, and must also rely on molecular pathology and IHC staining to make the final differential diagnosis. The use of a specific IHC panel for detecting these alterations should be performed depending on, and in combination with, cytoarchitectural characteristics, clinical and radiological findings, to address the possible differential diagnosis (i.e., to distinguish an epithelioid mesothelioma with clear cell features from a clear cell renal carcinoma) [8,9].

IHC staining is the part of mesothelioma pathology, which helps pathologists determine if mesothelioma is present. This scientific practice also reveals which cell types are present in the samples. The IHC markers for pleural mesothelioma include calretinin showed in nearly all epithelioid mesothelioma cases; cytokeratin 5 or 5/6 expressed in between 75% and 100% of cases;

Wilms' tumor-I antigen (WT1) shown in between 70% and 95% of diagnoses; podoplanin (D2-40) demonstrated in between 90% and 100% of cases.

Treatment with multimodal therapy is the standard approach to MPM. The majority of cases are not candidates for surgery due to advanced disease, age, or comorbidities [10]. For these patients, platinum-based chemotherapy (cisplatin plus pemetrexed) is first line treatment [11]. Most patients qualify for chemotherapy or radiation therapy and based on their health history, many are also eligible for clinical trials or immunotherapy. Therapy and the right treatment plans have improved mesothelioma patient's quality of life and life expectancy and even in some cases led to successful full recovery stories [12].

In resectable cases, the goal of surgery is macroscopic complete resection. This can be accomplished via lung-sparing surgery (extended pleurectomy and decortication) or extrapleural pneumonectomy [13]. Lung-sparing techniques have increased in favor due to lower morbidity and comparable outcomes [14]. Radiation therapy also plays a role in select patients. There is some evidence that the addition of antiangiogenic agents such as bevacizumab can improve outcomes in combination with chemotherapy [15]. MPM patients in the National Cancer Database by Nelson and colleagues [16] identified significant improvement in patient survival with surgery-based multimodality therapy compared with surgery alone, with the strongest effect seen using a combination of cancer-directed surgery, chemotherapy, and radiation therapy.

Malignant pleural mesothelioma (MPM) is a rare but aggressive cancer associated with median survival of 7-13 months from diagnosis with 5-year survival of less than 10% with multimodality therapy, and limited effective treatment options [17,18]. Histologic subtype has significant implications for prognosis, with the poorest outcomes observed for sarcomatoid tumors.

Longer survival is associated with female sex, younger age at diagnosis, earlier clinical stage, absent lymph node involvement, and lower comorbidity score [19]. Beyond the TNM staging system, clinical factors associated with shorter survival include increased tumor volume and maximal interlobar thickness as measured on computed tomography, elevated serum lactate dehydrogenase, neutrophil-to-lymphocyte ratio >5, anemia, and malnutrition [20,21,22]. Histologic subtype is one of the most significant prognostic factors, and non-epithelioid MPM is associated with shorter survival than epithelioid MPM.

## **Conclusions**

The cross-multidisciplinary team for precision medicine therapy for MPM must use the pathological morphology of surgical resection to make relevant differential diagnosis, and must also rely on molecular pathology and IHC analysis to make the differential diagnosis. This is the characteristic of this case report that demonstrates the pathological diagnosis, treatment limitations and complex properties.

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**Case Number: 595**

**Slide Number: 21-1888**

**Slide View: [http://140.120.114.107/ivp\\_slide\\_view.php?id=2235](http://140.120.114.107/ivp_slide_view.php?id=2235)**

### **Abstract**

The present case was a 7-year-old, male, mixed, FIV-positive cat. Clinically, the marked gross swelling was noted at the patient's bridge of the nose. The sanguineous secretions were noted from the nasal cavity. No other clinical abnormality was found. Two biopsies from Lt. nasal cavity and nasal were sent for pathological examination. Microscopically, the dermis and nasal submucosa are densely infiltrated by numerous intra- and extracellular organisms. The morphology of the organisms is most likely the yeasts, with ovoid to spherical shaped, about 5-20 um in diameter, 1-2um basophilic cell wall and a non-staining thick capsule. There are infiltrates of large numbers of inflammatory cells, mainly macrophages, neutrophils, and degenerative neutrophils, within the lesions. Under the Periodic Acid-Schiff stain, the yeast cells are deeply stained and well delineated. The clear zones represent the space occupied by their capsules. Narrow based budding is occasionally observed. Based on the typical gross appearance, growth site, histopathology, and the characteristics of special staining, the present case is diagnosed as a severe dermatitis and rhinitis which is caused by the yeast infection. The etiology is consistent with *Cryptococcus sp.*

Keywords: *Cryptococcus sp.*



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**論文選錄：**

1. 羅怡琪、曹文恬、江家瑋、王奕凡。敘利亞倉鼠之疑似梭菌性腸炎併發腸毒血症。行政院農業委員會家畜衛生試驗所 109 年度組織病理研討會專輯 P.99，2020。
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### **CASE HISTORY:**

**Signalment:** A 7-year-old, Male, mixed, cat

FIV (+). The marked gross swelling at the bridge of the nose, with sanguineous secretions was noted. The nasal planum showed diffusely ulcerative, covered by blood clots and necrotic debris. Two biopsies from Lt. nasal cavity and nasal planum was performed and was sent for pathological examination.

### **Gross Findings:**

The biopsied tissues from Lt. nasal cavity and nasal planum was received. The nasal biopsy showed solid to meaty texture with beige color. The nasal planum showed ulcerative and manifested firm texture.

### **CASE RESULT:**

#### **Histopathological Findings:**

Diffusely, the dermis and nasal submucosa are densely infiltrated by numerous intra- and extracellular fungal yeasts of 5-20  $\mu\text{m}$  in diameter, ovoid to spherical with a 1-2  $\mu\text{m}$  basophilic cell wall and a non-staining thick capsule observed as a clear circular halo up to 10  $\mu\text{m}$  in thickness. There are infiltrates of large numbers of inflammatory cells, mainly macrophages, neutrophils, and degenerative neutrophils, around the yeasts. Fewer lymphocytes, and plasma cells are observed as well. Multifocally, large areas of tissue necrosis mixed with abundant cell debris and fibrinous deposits are found.

#### **Pathological Diagnosis:**

Dermatitis and rhinitis, pyogranulomatous, severe, chronic active, with intralesional yeasts (etiology consistent with *Cryptococcus sp.*)

#### **Differential diagnosis:**

1. Cryptococcosis
2. Other mycotic infections, ex, Blastomycosis, Candidiasis, histoplasmosis, Coccidioides
3. Protothecosis
4. Neoplasm, including lymphoma, nasal adenocarcinoma

## **Discussion:**

Cryptococcosis is a worldwide disease, and cats are one of the most susceptible animals. Cryptococcus is a dimorphic, basidiomycetous encapsulated fungal organism causing disease in humans and animals. There are about 40 different species with the genus of Cryptococcus. *C. neoformans* (serotypes A, D, and AD) and *C. gatti* are considered as the most important pathogenic species, and different strains have geographical distribution, pathogenicity, and antimicrobial susceptibility. Pathogenic varieties of Cryptococcus spp. virulence factors; notably a thick, protective mucopolysaccharide capsule and the ability to grow at mammalian body temperatures. Infections can occur from inhalation of the basidiospore stage or desiccated yeasts from the environment. The infectious form can be found in soil, pigeon or other avian guano, and decaying organic matter.

In cats, Siamese, Birman, and Ragdoll cats seem to be predisposed to Cryptococcus infection. The latent virus infection, such as FIV, FeLV, may exaggerate the Cryptococcus infection. Clinically, skin, and nasal cavity is the most affected areas. Some cases may present in central nervous system, which can derive from the nasal cavity or occur independently, and some are systemic forms. The clinical sign of nasal form includes chronic nasal discharge, sneezing, loud breathing, swelling of nose and face, even face deformity in severe cases.

Histologically, the lesions are composed of large amounts of fungal organisms and accompanied with mild to variable degrees of granulomatous inflammation with hemorrhage and necrosis. The fungal morphology is easily recognized, characterized by round to oval, ranging from 5-10 *um* in diameter, with thin wall and surrounded by a large thick clear capsule (thickened “halo” capsule). Silver stain and PAS stain show positive staining of the yeasts and highlights narrow based budding. Differential diagnosis includes coccidioidomycosis, *Candida* and *Histoplasma*.

The prognosis is generally favorable in most cases, provided a diagnosis is obtained sufficiently early and prolonged treatment is maintained. However, CNS involvements has higher mortality rates and decreased survival times. Amphotericin B, ketoconazole, fluconazole and itraconazole have all been used. The first therapy for feline cryptococcosis is fluconazole due to a low incidence of adverse effects and its ability to achieve high tissue concentrations in the brain, and eye which are frequently involved in nasal cryptococcosis. Surgical excision is also a suitable method for those nodular lesions in the skin, nasal or oral mucosa.

In the present case, the disease is limited growth in the skin of nasal planum and nasal cavity. The condition is improved after adequate medical treatment. However, the patient has underlying FIV infection and other problem, it died after few weeks.

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**Case Number: 596**

**Slide Number: CM23-07003B**

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### **Abstract**

A farrow-to-finish farm raising approximately six thousand pigs was managed in batches on a weekly basis. An increasing number of 10-week-old nursery pigs showed mild to moderate respiratory symptoms such as panting and wet-coughing, the incidence rate at the date of inspection was about 60% with no deaths. Two ill nursery pigs were sent to the Animal Disease Diagnostic Center of National Chung Hsing University for disease diagnosis. Upon necropsy, mottled appearance of lungs, yellowish-white ascites, and few clear pericardial effusions were noted. Under histopathological examination, severe interstitial pneumonia characterized by infiltrations of lymphocytes, type II pneumocytes hyperplasia, and edema were observed in all lung lobes. Moreover, the infiltrations of neutrophil and lymphocyte were especially noted in the bronchi and alveolar of apical and cardiac lobes. Under microbiological examination, *Glaesserella parasuis* had been isolated from the lungs and bronchi, while under the molecular biological examination, porcine reproductive and respiratory syndrome virus (PRRSV) and *Mycoplasma hyorhinis* were demonstrated as positive. Based on the comprehensive history and the findings from all examinations, the final diagnosis was porcine respiratory disease complex (PRDC) in nursery pigs.

### **Keywords**

*Porcine respiratory disease complex (PRDC), PRRSV , Glaeserella parasuis , Mycoplasma hyorhinis*



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## History

In a pig farm located in the central part of Taiwan, approximately 6000 pigs are being raised, including about 2,250 weaning pigs and 700 sows. The farm follows a weekly batch feeding system. Approximately 250 piglets are weaned each week at 4 weeks of age, and weaned piglets leave the nursery at 12 weeks of age. The pig barns in the farm include both semi-enclosed and open buildings. The regular vaccination program for piglets (**Table 1**) includes porcine circovirus type 2 (PCV2), swine enzootic pneumonia, and *Actinobacillus pleuropneumoniae* (APP); for sows (**Table 2**) includes PRRS, pseudorabies (PR), atrophic rhinitis (AR), *E. coli* and *Clostridium* spp. The owner recently noticed that some 10-week-old nursery pigs in the open building showed respiratory symptoms such as coughing and panting. The morbidity rate is approximately 60% with no death. Doxycycline, cefazoline, and antipyretic herbal medicine were administered by the owner as food additive, but there was no improvement. Therefore, two 10-week-old ill pigs were submitted to the Animal Disease Diagnosis Center of National Chung Hsing University for further diagnosis.

## Gross Lesions

The weights of the 10-week-old pigs submitted for inspection were 13.9 and 12.4 kg, respectively, which are lower than average weight of healthy 10-week-old pigs (**Fig. 1**). One of the pigs had cyanosis on the ears and multiple skin papules on the flank. Upon necropsied, the lungs from both pigs showed mottled appearance and the texture is slightly soiled (**Fig. 2**). Small amount of mucous, pus-like material was noticed in the lumen of the bronchus. The mesentery lymph nodes and inguinal lymph nodes were slightly swollen and flush.

## Histological Examination

Under histopathological examination, the hyperplasia of type II pneumocytes and the infiltrations of inflammatory cells, mainly lymphocytes and macrophages (**Fig. 3-4**), contributed to the increasing thickness of the alveolar wall. Nodular hyperplasia of the bronchus-associated lymphoid tissue (BALT) was also noted. Massive neutrophils, lymphocytes, and a few macrophages admixing with necrotic cell debris accumulated within the bronchial lumen of apical and cardiac lobes of the lung (**Fig. 5**). The cilia on the remaining bronchial epithelial cells is diminished. In the inguinal lymph nodes, multifocal slight histiocytosis, hemorrhage, a decreased number of lymphocytes in lymph



follicles were observed. The mesentery lymph nodes also showed a slight decreased number of lymphocytes.

### **Microbiological Examination**

Samples were taken from the apical lobes, cardiac lobes, bronchi, tarsal joint capsules and gallbladders of the pigs. The microbes sampled were inoculated on the MacConkey agar, blood agar and chocolate agar. Bacteria colonies were successfully isolated from the lung and bronchus. By performing 16s rRNA sequencing, the bacteria colonies isolated in this case were characterized as *Glaesserella parasuis*. No bacteria were isolated from the joint capsules and the gallbladders.

### **Molecular Diagnosis**

The tissues from spleen, lungs, lymph nodes, and tonsil were mixed and homogenized to make tissue emulsion. The genes of porcine circovirus type 2 (PCV2), *Mycoplasma hyopneumoniae* (MHP) and *Mycoplasma hyorhinis* (MHR) were detected by performing polymerase chain reaction (PCR); while the genes of different genotypes of porcine reproductive and respiratory syndrome virus (PRRSV) were also detected by using reverse transcription polymerase chain reaction (RT-PCR). The results demonstrated positive for PRRSV (North American genotype) and *Mycoplasma hyorhinis* (MHR).

### **Final Diagnosis**

Porcine Respiratory Disease Complex (PRDC) in Nursery Pigs

### **Discussion**

Porcine respiratory disease complex (PRDC) mainly occurs in nursery and growing pigs. The exposure to respiratory pathogens including various virus and bacteria along with some environmental risk factors such as poor hygiene and poor management may be the reasons for PRDC outbreaks. In the present case, the barns had two types of building: the open- and semi-enclosed. The pigs with PRDC syndromes were raised in the open buildings, while no pigs were affected by the disease in the semi-enclosed buildings. Moreover, the ventilation of the open building is poor because the owner had frequently covered the building with canvas to avoid thundershowers. All the environmental factors may lead to multiple stress to the nursery pigs thus leading to immune depression.

Upon necropsy and histological examination, the main lesions in the lungs included lymphocytic interstitial pneumonia, necrotic and suppurative bronchopneumonia, type II pneumocyte hyperplasia, bronchial-associated lymphoid tissue (BALT) hyperplasia, and cilia diminishment. Currently common viral diseases in the field that may cause interstitial pneumonia in nursery pigs include PRRSV and PCV2; bacterial infections include *Salmonella Choleraesuis*. As to the bronchopneumonia, the common pathogens include Pseudorabies (PR), *Mycoplasma hyopneumoniae*(MHP), *Streptococcus suis*, and *Glaesserella parasuis*(GP). Additionally, bacteria that may cause damage to the bronchial mucosal epithelium include *Mycoplasma hyopneumoniae* (MHP) and *Mycoplasma hyorhinis* (MHR).

According to the clinical symptoms, moderate to high morbidity, extremely low mortality, and all the histological findings in the present case, the co-infections of PRRSV and *Mycoplasma spp* are highly speculated. By performing the Warthin–Starry staining (silver staining), some black filamentous substances attached to the surface of the bronchial epithelial cells could be identified, resembling the infection of *Mycoplasma spp* (Fig. 6) Under microbiological examination, *Glaesserella parasuis* was successfully isolated. The antimicrobial susceptibility test was performed accordingly and the results demonstrated that the bacteria isolated in this case are susceptible to penicillin, ampicillin, amoxicillin, enrofloxacin, oxytetracycline, doxycycline, florfenicol, and lincomycin/spectinomycin. The results of antibiotic sensitivity tests can be used as a reference for further medication. Under molecular examination, the genes of PRRSV North American genotype and *Mycoplasma hyorhinis* (MHR) were detected by PCR. Therefore, the case was diagnosed as porcine respiratory disease complex (PRDC) in nursery pigs.

PRRSV is an enveloped positive-strand RNA virus, with two genotypes: European and North American. PRRSV is highly contagious and can be transmitted horizontally, mechanically and vertically through the placenta [1, 2]. Pigs of all ages are susceptible to PRRSV. The PRRSV can be transmitted through oral, nasal, body secretions, and semen [3]. The virus has tropism for alveolar macrophages and replicates in macrophages and dendritic cells in the lungs and upper respiratory tract 6 to 12 hours after entry, so the lungs are the main organs infected by PRRSV [4]. Then, the virus enters the peripheral lymph nodes through the lymphatic draining and infects monocytes and macrophages throughout the body, causing immunosuppression in the affected pigs [3]. The clinical symptoms vary according to the virulence of the virus and the immune status of the herd. Generally, sows are more resistant to pathogens and have fewer clinical symptoms. The main symptoms in sows are reproductive disorders such as abortion, delayed or irregular estrus cycle [1], with a mortality rate of approximately 1 to 4% [5]. The common symptoms of PRRS in nursery pigs and growing pigs include anorexia, cough, painting, fever, growth retardation, dyspnea, cyanosis on the pinna [5]. Recently, the highly virulent PRRSV-HP was discovered in the United States in 1995. Since the outbreaks occur in China in 2006, the PRRSV-HP spread rapidly to Asian countries including Taiwan [6, 7]. The mortality rate of pig infected with PRRSV-HP is about 20~100% [7].

*Glaesserella parasuis* is a Gram-negative bacteria belonging to the family Pasteurellaceae and requires external NAD to maintain bacterial growth [8]. Fifteen serotypes of *Glaesserella parasuis* have been identified so far [9]. *Glaesserella parasuis* is a normal flora in the upper respiratory tract of pigs. Therefore, *Glaesserella parasuis* can be isolated from the nasal cavity, tonsils, and upper part of the trachea from a healthy pig, but should not be isolated from the lower part of the respiratory and the lungs. Sows are mainly the carriers of the bacteria. Depending on the level of maternal antibodies and the existence of other co-infective pathogens, the *Glaesserella parasuis* may outbreak in different ages but mainly 4 to 8 weeks of age [9]. The morbidity and mortality rates vary widely, typically 5% to 10%, and co-infectious pathogens, such as viruses that cause immunosuppression (PRRSV and PCV2), can influence disease incidence [10]. Common clinical symptoms of *Glaesserella parasuis*

infection include cough, fever, panting, joint swelling and neurological symptoms. At autopsy, mottled lungs, polyserositis with fibrinous exudate, meningitis, and arthritis are commonly seen [11].

*Mycoplasma hyorhinis* is also a normal flora in tonsils, nasal and tracheal epithelium of pig [12]. Although most pigs may not develop clinical symptoms after infection, but in some circumstances, the *Mycoplasma hyorhinis* could cause growth retardation and reduced feed efficiency [13]. *Mycoplasma hyorhinis* can destroy the structure of cilia on the bronchus, reduces the thickness of the bronchial epithelium, and increases the number and activity of goblet cells [14]. Studies have shown that this pathogen can also suppress the immune responses by decreasing the numbers of lymphocyte and monocytes, eventually promotes systemic spread of the pathogen [15]. In addition to respiratory symptoms, *Mycoplasma hyorhinis* can also lead to abortion, conjunctivitis, and pharyngitis in pigs while co-infections with other viral pathogens were established [14]. Clinical symptoms and findings include fever, anorexia, dyspnea, and joint swelling. Fibrinous polyserositis, bronchial-associated lymphoid tissue (BALT) hyperplasia, and cilia diminishment are some common findings in *Mycoplasma hyorhinis* infected pigs.

Overall, in the present case, we isolated *Glaeserella parasuis* and detected *Mycoplasma hyorhinis* and PRRSV from the lungs of the ill pigs. However, neither fibrinous exudate nor polyserositis were found during necropsy. We hypothesized that PRRSV should be the primary pathogen that establishes the infection and causes respiratory symptoms in the early stage, then, *Glaeserella parasuis* and *Mycoplasma hyorhinis* are secondary infections to the immune suppressive pigs in the late stage. At the time of inspection, the typical chronic lesions for *Glaeserella parasuis* and *Mycoplasma hyorhinis* such as polyserositis had not yet been developed.

## Tables

Table 1. Vaccination Program in Piglets

Vaccine	Time Point
Porcine circovirus type 2	3 weeks old
Swine enzootic pneumonia	3 weeks old
<i>Actinobacillus pleuropneumoniae</i>	9 weeks old & 12 weeks old

Table 2. Vaccination Program in Sows

Vaccine	Time Point
PRRS (modified live vaccine)	Every 3 month
Pseudorabies	Every 4 month
Atrophic rhinitis	6 weeks- and 3 weeks- before parturition
<i>E. coli</i>	6 weeks- and 3 weeks- before parturition
<i>Clostridium</i> spp.	6 weeks- and 3 weeks- before parturition

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**Case Number: 597**

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### **Abstract**

A 12-year-old and male castrated Persian cat coughed for 2 weeks. A left pulmonary lesion was found via radiography. Based on the images of computed tomography, there was mass at the right main bronchus extending to the right middle, right proximal caudal and accessory bronchi, and causing pulmonary atelectasis of the right middle and accessory and occlusion of the proximal right caudal bronchus. The bronchial biopsy exhibited a nonencapsulated neoplasm composed of papillary structures densely packed with sheets of neoplastic cells in the stroma. The specimen consisted of two cell population including ciliated cells and epithelioid cells. The neoplasm was subjected for immunohistochemical evaluation. Those overlying ciliated neoplastic cells and the underlying epithelioid cells both showed moderate to strong positivity signals against CK. A bronchial carcinoma was diagnosed, which has not been reported in veterinary medicine.

Keywords: bronchial carcinoma



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## **CASE HISTORY:**

**Signalment:** A 12-year-old, male castrated, Persian cat

Cough has been noted for 2 weeks and lesion in the left pulmonary lobe was suspected via radiography. Based on the imagine of computed tomography, there was a mass at the right main bronchus extending to the right middle and proximal caudal and accessory bronchi, causing right middle/ accessory pulmonary atelectasis and occlusion of the proximal right caudal bronchus with air trapped in the right caudal lung lobe.

## **CASE RESULTS:**

### **Histopathological Findings:**

The bronchial biopsy exhibited a nonencapsulated neoplasm composed of papillary structures densely packed with sheets of neoplastic cells in the stroma. There are two populations, including epithelioid cells and ciliated cells. The epithelioid cells infiltrating in the stroma is supported by delicate fibrous connective tissue, and possess indistinct cellular border and moderate amount of light eosinophilic cytoplasm. Their nuclei are round, ovoid or elongated and single prominent nucleoli are occasionally observed. The anisocytosis is mild to moderate. Tubular formation can sometimes be noted. The ciliated cells overlying on the projections are indistinctly bordered and cuboidal in shape, and have small to moderate amount of basophilic cytoplasm, round to ovoid nuclei, and dense chromatin. The anisocytosis is minimal.

### **Immunohistochemistry:**

Sections of tissue specimen were subjected for immunohistochemical stain. Both of the ciliated cells and the epithelioid cells show moderate to strong positivity against antibody of CK but negative for vimentin, chromogranin A and synaptophysin.

### **Diagnosis:**

Carcinoma, mass of right main bronchus

### **Comment:**

In veterinary medicine, tumors originating from the luminal and extraluminal bronchial cell lineages are infrequently documented, and frequently result in airway obstruction leading to coughing, exercise intolerance, stridor, dyspnea, and wheezing clinically. Based on the reviewed studies, all the retrospective studies and sporadic cases were located at the trachea and are carcinoma, squamous cell

carcinoma, adenocarcinoma, adenosarcoma, seromucinous carcinoma, lymphoma, leiomyoma, chondrosarcoma, mast cell tumor, and lipoma, while none was reported at the bronchi as the present case. There are no reported predisposing risk factors associated with invasive tracheal tumors in cats. Bronchoscopic debulking is a common treatment and can offer immediate improvement in clinical signs. Other treatments include intraluminal stenting, permanent tracheostomy, and resection and anastomosis. With limited knowledge, primary tracheal/ bronchial tumor seems to have low metastatic rate and the general prognosis still remains unclear.

Tracheobronchial tumors are also a rare entity that represent only about 0.6% or 0.2 of all the pulmonary tumors in various studies in human medicine. Two universities demonstrated this rarity, revealing that out of 9,000 and 12,700 autopsies, only 2 cases were primary tracheal tumors. The tumors are often malignant than benign and mostly in adult. Squamous cell carcinoma (SCC) and adenoid cystic carcinomas (ACC) constituting more than 60% of the cases. Other less frequent malignant primary tracheal tumors include carcinoid, lymphoma, melanoma, mucoepidermoid carcinoma and sarcoma. Squamous papilloma, chondroma, granular cell tumor, hamartoma, hemangioma, leiomyoma, neurogenic tumor, and pleomorphic adenoma are benign tumors that have been reported. The majority of airway tumors causes nonspecific symptoms like coughing and dyspnea, particularly when 50% of the lumen is occupied. Restoring or maintaining airway patency and treating the underlying illness to achieve cure or regression of the tracheal tumor, depending on whether the tumor is resectable or not, are the mainstays of therapy. The overall 5-year survival rate is 27% for all primary tracheal tumors; however, it increases to 46% in patients with confined disease. Survival is also affected by the involvement of lymph nodes and the tumor's histology. For example, ACC have better survival compared to SCC.

In the present case, the neoplastic cells form solid nests or papillary projections with two different cell types. Based on the result of immunohistochemistry staining (IHC), 100% and 80% of ciliated and epithelioid cells are respectively highlighted by CK antibody, suggestive of epithelial cell origin. However, due to the limited submitted sample and the lack of available markers, the whole picture of the neoplasm still cannot be properly evaluated.

With little study of the neoplasm originated from this anatomical area, the prognosis of the present case should be associated with the invasion behavior, surgical margin and recurrence. Additionally, multiple blurring nodules in the right cranial and caudal lung lobes are found under the computed topography exam in the present case, whether these nodules are related to the bronchial carcinoma is unclear and further follow up and/ or biopsy are recommended.

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# 中華民國比較病理學會章程

## 第一章 總則

- 第一條 本會定名為中華民國比較病理學會，英文名稱為 Chinese Society of Comparative Pathology (CSCP) (以下簡稱本會)。
- 第二條 本會依內政部人民團體法設立，為非營利目的之社會團體，以結合人類醫學與動物醫學資源，提倡比較病理學之研究與發展，交換研究教學心得，聯絡會員友誼及促進國際間比較醫學之交流為宗旨。
- 第三條 本會以全國行政區域為組織區域，會址設於主管機關所在地區，並得報經主管機關核准設主分支機構。前項分支機構組織簡則由理事會擬訂，報請主管機關核准後行之。會址及分支機構之地址於設置及變更時應報請主管機關核備。
- 第四條 本會之任務如左：
- 一、 提倡比較病理學之研究與發展。
  - 二、 舉辦學術演講會、研討會及相關訓練課程。
  - 三、 建立國內比較醫學相關資料庫。
  - 四、 發行比較病理學相關刊物。
  - 五、 促進國內、外比較醫學之交流。
  - 六、 其他有關比較病理學術發展之事項。
- 第五條 本會之主管機關為內政部。目的事業主管機關依章程所訂之宗旨與任務，主要為行政院衛生署及農業委員會，其目的事業應受各該事業主管機關之指導與監督。

## 第二章 會員

- 第六條 本會會員申請資格如下：
- 一、 一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校(或同等學歷)生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。
  - 二、 學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其它相關科系肄業者(檢附學生身份證明)。
  - 三、 贊助會員：贊助本會工作之團體或個人。

四、 榮譽會員：凡對比較病理學術或會務之推展有特殊貢獻，經理事會提名並經會員大會通過者。

前項一、二、三項會員申請時應填具入會申請書，經一般會員二人之推薦，經理事會通過，並繳納會費。學生會員身份改變成一般會員時，得再補繳一般會員入會費之差額後，即成為一般會員，榮譽會員免繳入會費與常年會費。

第七條 一般會員有表決權、選舉權、被選舉與罷免權，每一會員為一權。贊助會員、學生會員與榮譽會員無前項權利。

第八條 會員有遵守本會章程、決議及繳納會費之義務。

第九條 會員有違反法令、章程或不遵守會員大會決議時，得經理事會決議，予以警告或停權處分，其危害團體情節重大者，得經會員大會決議予以除名。

第十條 會員喪失會員資格或經會員大會決議除名者，即為出會。

第十一條 會員得以書面敘明理由向本會聲明退會。但入會費與當年所應繳納的常年會費不得申請退費。

### 第三章 組織及職員

第十二條 本會以會員大會為最高權力機構。

第十三條 會員大會之職權如下：

- 一、 訂定與變更章程。
- 二、 選舉及罷免理事、監事。
- 三、 議決入會費、常年會費、事業費及會員捐款之方式。
- 四、 議決年度工作計畫、報告、預算及決算。
- 五、 議決會員之除名處置。
- 六、 議決財產之處分。
- 七、 議決本會之解散。
- 八、 議決與會員權利義務有關之其他重大事項。

前項第八款重大事項之範圍由理事會訂定之。

第十四條 本會置理事十五人，監事五人，由會員選舉之，分別成立理事會、監事會。

選舉前項理事、監事時，依計票情形得同時選出候補理事五人，候補監事一人，遇理事或監事出缺時，分別依序遞補之。

本屆理事會得提出下屆理事及監事候選人參考名單。

第十五條 理事會之職權如下：

- 一、 審定會員之資格。
- 二、 選舉及罷免常務理事及理事長。

- 三、 議決理事、常務理事及理事長之辭職。
- 四、 聘免工作人員。
- 五、 擬訂年度工作計畫、報告、預算及決算。
- 六、 其他應執行事項。

第十六條 理監事置常務理事五人，由理事互選之，並由理事就常務理事中選舉一人為理事長。

理事長對內綜理監督會議，對外代表本會，並擔任會員大會、理事會主席。

理事長因事不能執行職務時，應指定常務理事一人代理之，未指定或不能指定時，由常務理事互推一人代理之。

理事長或常務理事出缺時，應於一個月內補選之。

第十七條 監事會之職權如左：

- 一、 監察理事會工作之執行。
- 二、 審核年度決算。
- 三、 選舉及罷免常務監事。
- 四、 議決監事及常務監事之辭職。
- 五、 其他應監察事項。

第十八條 監事會置常務監事一人，由監事互選之，監察日常會務，並擔任監事會主席。

常務監事因事不能執行職務時，應指定監事一人代理之，未指定或不能指定時，由監事互推一人代理之。監事會主席（常務監事）出缺時，應於一個月內補選之。

第十九條 理事、監事均為無給職，任期三年，連選得連任。理事長之連任以一次為限。

第二十條 理事、監事有下列情事之一者，應即解任：

- 一、 喪失會員資格。
- 二、 因故辭職經理事會或監事會決議通過者。
- 三、 被罷免或撤免者。
- 四、 受停權處分期間逾任期二分之一者。

第二十一條 本會置秘書長一人，承理事長之命處理本會事務，令置其他工作人員若干人，由理事長提名經理事會通過後聘免之，並報主管機關備查。但秘書長之解聘應先報主管機關核備。

前項工作人員不得由選任之職員（理監事）擔任。工作人員權責及分層負責事項由理事會令另定之。

第二十二條 本會得設各種委員會、小組或其它內部作業組織，其組織簡則由理事會擬定，報經主機關核備後施行，變更時亦同。

第二十三條 本會得由理事會聘請無給顧問若干人，其聘期與理事、監事之任期同。

#### 第四章 會議

第二十四條 會員大會分定期會議與臨時會議兩種，由理事長召集，召集時除緊急事故之臨時會議外應於十五日前以書面通知之。定期會議每年召開一次，臨時會議於理事會過半數認為必要，或經會員五分之一以上之請，或監事會半數函請召集時召開之。

第二十五條 會員不能親自出席會員大會時，得以書面委託其他會員代理，每一會員以代理一人為限。

第二十六條 會員大會之決議，以出席人數過半之同意行之。但章程之訂定與變更、會員之除名、理事及監事之罷免、財產之處置、本會之解散及其他與會權利義務有關之重大事項應有出席人數三分之二以上同意。但本會如果辦理法人登後，章程之變更應以出席人數四分之三以上之同或全體會員三分之二以上書面之同意行之。

第二十七條 理事會及監事會至少每六個月各舉行會議一次，必要時得召開聯席會議或臨時會議。

前項會議召集時除臨時會議外。應於七日以前以書面通知，會議之決議各以理事、監事過半數之出席，出席人較多數之同意行之。

第二十八條 理事應出席理事會議，監事應出席監事會議，不得委託出席；理事、監事連續二次無故缺席理事會、監事會者，視同辭職。

#### 第五章 經費及會計

第二十九條 本會經費來源如下：

- 一、入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。
- 二、常年會費：一般會員新台幣壹仟元，學生會員壹佰元。
- 三、事業費。
- 四、會員捐款。
- 五、委託收益。

六、基金及其孳息。

七、其他收入。

第三十條 本會會計年度以國曆年為準，自每年一月一日起至十二月三十一日止。

第三十一條 本會每年於會計年度開始前二個月由理事會編造年度工作計劃、收支預算表、員工待遇表，提會員大會通過（會員大會因故未能如期召開者，先提理監事聯席會議通過），於會計年度開始前報主管機關核備，並於會計年度終了後二個月內由理事會編造年度工作報告、收支決算表、現金出納表、資產負債表、財產目錄及基金收支表，送監事會審核後，造具審核意見書送還理事會，提會員大會通過，於三月底前報主管機關核備（會員大會未能如期召開者，需先報主管機關備查）。

第三十二條 本會解散後，剩餘財產歸屬所在地之地方自治團體或主管機關指定之機關團體所有。

第三十三條 本章程未規定事項，悉依有關法令規定辦理。

第三十四條 本章程經大會通過，報經主管機關核備後施行，變更時亦同。

第三十五條 本章程經本會民國八十五年二月四日第一屆第一次會員大會通過，並報經內政部 85 年 3 月 14 日台(85)內社字第 8507009 號函准予備查。

## 中華民國比較病理學會 第十屆理監事簡歷冊

序號	職別	姓名	性別	學歷	經歷	現任本職
1	理事長	張俊梁	男	國防醫學院醫學科學研究所博士	國防醫學院兼任助理教授	國軍桃園總醫院病理檢驗部兼任主治醫師/台北榮民總醫院桃園分院兼任主治醫師/銘傳大學、國防醫學院兼任教授
2	常務理事	邱慧英	女	國立台大獸醫專業學院博士	台灣養豬科學研究所	國立中興大學獸醫病理生物學研究所副教授
3	常務理事	張惠雯	女	國立臺灣大學獸醫專業學院博士	美國哈佛醫學院博士後	台灣大學分子暨比較病理生物學研究所副教授
4	常務理事	陳燕麟	男	輔仁大學化學研究所博士	日本國立神經精神中心研究員	三軍總醫院病理部主治醫師/國防醫學院助理教授
5	常務理事	劉振軒	男	美國加州大學戴維斯校區比較病理學博士	國立臺灣大學獸醫專業學院院長	台灣大學分子暨比較病理生物學研究所兼任教授
6	理事	江家瑋	男	國立臺灣大學獸醫專業學院碩士		霍普獸醫病理專科醫院病理獸醫師
7	理事	林永和	男	國立台大病理研究所碩士	台北醫學院病理科講師	台北醫學院病理科副教授
8	理事	張皓凱	男	國立中興大學獸醫病理學研究所碩士		立眾病理實驗室主任 病理獸醫
9	理事	彭奕仁	男	國防醫學院醫學科學研究所博士	美國西雅圖華盛頓大學病理研究員	三軍總醫院病理部主任/國防醫學院病理及寄生蟲研究所所長/副教授
10	理事	黃威翔	男	國立臺灣大學獸醫專業學院博士		台灣大學分子暨比較病理生物學研究所副教授
11	理事	賈敏原	男	國立臺灣大學獸醫專業學院博士	國衛院研究員	國立中興大學獸醫系副教授
12	理事	鄭明芳	男	國立陽明大學口腔生物研究所博士	三軍總醫院病理部主治醫師	國軍花蓮總醫院組織臨床病理科主任
13	理事	賴銘淙	男	清華大學生命科學院博士	彰濱秀傳紀念醫院病理科主任	衛生福利部臺中醫院病理學科主任/中山醫學大學病理科副教授
14	理事	簡耀君	男	國立臺灣大學獸	長青動物醫院病	長青動物醫院病理部

				醫專業學院碩士	理部主任	主任
15	常務監事	陳姿好	女	國立中興大學獸醫病理學研究所碩士	生技中心研究員	財團法人國家實驗研究院國家實驗動物中心副技術師
16	監事	朱旆億	男	國立臺灣大學醫學系/國立臺灣大學獸醫專業學院博士	輔仁大學醫學系兼任助理教授	彰化秀傳紀念醫院病理科主任
17	監事	施洽雯	男	國立國防醫學院病理研究所	中山醫學院病理科副教授	羅東博愛醫院病理科主任
18	監事	廖俊旺	男	國立台灣大學獸醫學研究所博士	農業藥物毒物試驗所應用毒理組副研究員	國立中興大學獸醫病理生物學研究所教授
19	監事	鄭謙仁	男	美國北卡羅萊納州立大學博士	台灣大學獸醫學系教授兼院長	台灣大學分子暨比較病理生物學研究所教授
20	秘書長	張晏禎	女	國立臺灣大學獸醫專業學院博士	中央研究院博士後	台灣大學分子暨比較病理生物學研究所助理教授



## 中華民國比較病理學會 112 年度工作計劃

### 一、 會務

#### (一) 徵求會員

二、 持續進行學會推廣及會員招募，擴大會員陣容，

#### (一) 整理會籍與清查會費

1. 更新整理會籍資料，並製作會員通訊錄

2. 清查會員繳費狀況，進行催繳，缺繳三年以上徹底實行停權

(二) 召開會議：召開會員大會一次，審查 111 年度工作報告與經費收支狀況，研議 112 年度之工作計劃及預算

(三) 學術活動：持續辦理三次研討會，並邀請國內外專家學者做學術性的演講

### 三、 業務

#### (一) 繳納會費

#### (二) 文書處理

(三) 整理與更新會員信箱，刪除無效信箱

(四) 病例資料處理：掃描研討會議病例切片，供會員研究教學使用

(五) 研討會活動照片、會員狀態及網頁維護更新

(六) 進行獸醫再教育學分申請及協助會員學分認證

# 中華民國比較病理學會 112 年度工作報告

## 一、 召開會員大會、理監事會議、舉辦學術研討會

### (一) 會員大會

1. 第九屆第四次會員大會於 112 年 4 月 22 日於台大獸醫專業學院召開。

### (二) 理監事會議

1. 第十屆第一次理監事會議於 112 年 4 月 22 日於台大獸醫專業學院召開。
2. 第十屆第二次理監事會議於 112 年 8 月 12 日於台北市立動物園召開。
3. 第十屆第三次理監事會議於 112 年 12 月 9 日於台大獸醫專業學院召開。

## 二、 舉辦學術演講

### (一) 第 86 次比較病理研討會邀請專題演講：

1. 陳志學醫師：Updated classification of soft tissue tumor

### (二) 第 87 次比較病理研討會邀請專題演講：

1. 林佑俊醫師：心臟血管疾病與案例分享
2. 陳冀寬醫師：從人類病理到動物模式與醫材開發

### (三) 第 88 次比較病理研討會邀請專題演講：

1. 蔡文銓醫師：Cancer immunotherapy and PD-L1 checkpoint pathway in non-small cell lung cancer
2. 陳慧文教授：Poultry respiratory viral infections and laboratory models

## 三、 舉辦學術病理切片病例討論

- (一) 於第 86 次比較病理研討會共有 4 個單位提供 4 個病例供會員討論。
- (二) 於第 87 次比較病理研討會共有 4 個單位提供 4 個病例供會員討論。
- (三) 於第 88 次比較病理研討會共有 5 個單位提供 5 個病例供會員討論。

## 四、 架設學會網站 (網址：<http://www.ivp.nchu.edu.tw/cscp/>)

- (一) 提供第 86 次比較病理研討會活動花絮照片
- (二) 提供第 87 次比較病理研討會活動花絮照片
- (三) 提供第 88 次比較病理研討會活動花絮照片

## 五、 獸醫師繼續教育學分認證

- (一) 第 86 次比較病理研討會提供獸醫師繼續教育認證。
- (二) 第 87 次比較病理研討會提供獸醫師繼續教育認證。
- (三) 第 88 次比較病理研討會提供病理學會及獸醫師繼續教育認證。

## 資料庫使用須知

### How-To Access Comparative Pathology Virtual Slides

Hosted at the Web Library in NTU Vet Med Digital Pathology Lab

(中華民國比較病理學會數位式組織切片影像資料庫)

Comparative Pathology glass slides are now digitalized and accessible to all participants through the internet and a web browser (see below for detail instruction).

1. Please make sure that your web browser (e.g. Internet Explorer, Firefox or Safari) is equipped with "flash player." If not, it can be added from <http://www.adobe.com/products/flashplayer/> for free.
2. Please go to the Chinese Society of Comparative Pathology web site at <http://www.ivp.nchu.edu.tw/cscp/>
3. Choose the slide images (e.g. 63<sup>rd</sup> CSCP)
4. Pick any case you'd like to read (e.g. case 435-440)

## 比較病理研討會病例分類一覽表

中華民國比較病理學會  
第一次至第八十七次比較病理學研討會病例分類一覽表

### 腫瘤

病例編號	會議場次	診 斷	動物別	提供單位
1.	1	Myxoma	Dog	美國紐約動物醫學中心
2.	1	Chordoma	Ferret	美國紐約動物醫學中心
3.	1	Ependyoblastoma	Human	長庚紀念醫院
8.	2	Synovial sarcoma	Pigeon	美國紐約動物醫學中心
18.	3	Malignant lymphoma	Human	長庚紀念醫院
19.	3	Malignant lymphoma	Wistar rat	國家實驗動物繁殖及研究中心
24.	3	Metastatic thyroid carcinoma	Human	省立新竹醫院
25.	3	Chordoma	Human	新光吳火獅紀念醫院
34.	4	Interstitial cell tumor	Dog	中興大學獸醫學系
35.	4	Carcinoid tumor	Human	長庚紀念醫院
36.	4	Hepatic carcinoid	Siamese cat	美國紐約動物醫學中心
38.	6	Pheochromocytoma	Ferret	美國紐約動物醫學中心
39.	6	Extra adrenal pheochromocytoma	Human	新光吳火獅紀念醫院
40.	6	Mammary gland fibroadenoma	Rat	國家實驗動物繁殖及研究中心
41.	6	Fibroadenoma	Human	省立豐原醫院
42.	6	Canine benign mixed type mammary gland tumor	Pointer bitch	中興大學獸醫學系
43.	6	Phyllodes tumor	Human	台中榮民總醫院
44.	6	Canine oral papilloma	Dog	台灣大學獸醫學系
45.	6	Squamous cell papilloma	Human	中國醫藥學院
47.	7	1. Lung: metastatic carcinoma associated with cryptococcal infection. 2. Liver: metastatic carcinoma. 3. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
56.	8	Gastrointestinal stromal tumor	Human	台中榮民總醫院

59.	8	Colonic adenocarcinoma	Dog	美國紐約動物醫學中心
62.	8	Submucosal leiomyoma of stomach	Human	頭份為恭紀念醫院
64.	8	1. Adenocarcinoma of sigmoid colon 2. Old schistosomiasis of rectum	Human	省立新竹醫院
71.	9	Myelolipoma	Human	台北耕莘醫院
72.	9	Reticulum cell sarcoma	Mouse	國家實驗動物繁殖及研究中心
73.	9	Hepatocellular carcinoma	Human	新光吳火獅紀念醫院
74.	9	Hepatocellular carcinoma induced by aflatoxin B1	Wistar rats	台灣省農業藥物毒物試驗所
	10	Angiomyolipoma	Human	羅東博愛醫院
	10	Inverted papilloma of prostatic urethra	Human	省立新竹醫院
	10	Nephrogenic adenoma	Human	國泰醫院
	10	Multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院
	10	Squamous cell carcinoma of renal pelvis and calyces with extension to the ureter	Human	台北病理中心
	10	Fibroepithelial polyp of the ureter	Human	台北耕莘醫院
90.	10	Clear cell sarcoma of kidney	Human	台北醫學院
93.	11	Mammary gland adenocarcinoma, complex type , with chondromucinous differentiation	Dog	台灣大學獸醫學系
94.	11	1. Breast, left, modified radical mastectomy, showing papillary carcinoma, invasive 2. Nipple, left, modified radical mastectomy, papillary carcinoma, invasive 3. Lymph node, axillary, left, lymphadenectomy, papillary carcinoma, metastatic	Human	羅東聖母醫院
95.	11	Transmissible venereal tumor	Dog	中興大學獸醫學系
96.	11	Malignant lymphoma, large cell type, diffuse, B-cell phenotype	Human	彰化基督教醫院
97.	11	Carcinosarcomas	Tiger	台灣養豬科學研究所
98.	11	Mucinous carcinoma with intraductal carcinoma	Human	省立豐原醫院

99.	11	Mammary gland adenocarcinoma, type B, with pulmonary metastasis, BALB/cBYJ mouse	Mouse	國家實驗動物繁殖及研究中心
100.	11	Malignant fibrous histiocytoma and paraffinoma	Human	中國醫藥學院
102.	11	Pleomorphic adenoma (benign mixed tumor)	Human	佛教慈濟綜合醫院
103.	13	Atypical central neurocytoma	Human	新光吳火獅紀念醫院
	13	Cardiac schwannoma	SD rat	國家實驗動物繁殖及研究中心
	13	Desmoplastic infantile ganglioglioma	Human	高雄醫學院
	13	1.Primary cerebral malignant lymphoma 2.Acquired immune deficiency syndrome	Human	台北市立仁愛醫院
	13	Schwannoma	Human	三軍總醫院
	13	Osteosarcoma	Dog	美國紐約動物醫學中心
	14	Mixed germ-cell stromal tumor, mixed sertoli cell and seminoma-like cell tumor	Dog	美國紐約動物醫學中心
	14	Krukenberg's Tumor	Human	台北病理中心
	14	Primary insular carcinoid tumor arising from cystic teratoma of ovary.	Human	花蓮慈濟綜合醫院
	14	Polypoid adenomyoma	Human	大甲李綜合醫院
	14	Gonadal stromal tumor	Human	耕莘醫院
	14	Gestational choriocarcinoma	Human	彰化基督教醫院
	14	Ovarian granulosa cell tumor	Horse	中興大學獸醫學系
	15	Kaposi's sarcoma	Human	華濟醫院
	15	Basal cell carcinoma (BCC)	Human	羅東聖母醫院
	15	Transmissible venereal tumor	Dog	臺灣大學獸醫學系
	17	Canine Glioblastoma Multiforme in Cerebellopontine Angle	Dog	中興大學獸醫病理研究所
143	18	Osteosarcoma associated with metallic implants	Dog	紐約動物醫學中心
144	18	Radiation-induced osteogenic sarcoma	Human	花蓮慈濟綜合醫院
145	18	Osteosarcoma, osteogenic	Dog	臺灣大學獸醫學系
146	18	Pleomorphic rhabdomyosarcoma	Human	行政院衛生署新竹醫院

147	18	Papillary Mesothelioma of pericardium	Leopard	屏東科大學獸醫學系
148	18	Cystic ameloblastoma	Human	台北醫學院
149	18	Giant cell tumor of bone	Canine	中興大學獸醫學院
150	18	Desmoplastic small round cell tumor (DSRCT)	Human	華濟醫院
152	18	Hepatocellular carcinoma	Human	羅東聖母醫院
158	20	Hemangiopericytoma	Human	羅東聖母醫院
160	20	Cardiac fibroma	Human	高雄醫學大學病理學科
166	21	Nephroblastoma	Rabbit	紐約動物醫學中心
168	21	Nephroblastoma	Pig	台灣動物科技研究所
169	21	Nephroblastoma with rhabdomyoblastic differentiation	Human	高雄醫學大學病理科
172	21	Spindle cell sarcoma	Human	羅東聖母醫院
174	21	Juxtaglomerular cell tumor	Human	新光醫院病理檢驗科
190	27	Angiosarcoma	Human	高雄醫學大學病理學科
192	27	Cardiac myxoma	Human	彰化基督教醫院病理科
194	27	Kasabach-Merrit syndrome	Human	慈濟醫院病理科
195	27	Metastatic hepatocellular carcinoma, right atrium	Human	新光醫院病理科
197	27	Papillary fibroelastoma of aortic valve	Human	新光醫院病理科
198	27	Extraplacental chorioangioma	Human	耕莘醫院病理科
208	30	Granulocytic sarcoma (Chloroma) of uterine cervix	Human	高雄醫學大學病理學科
210	30	Primary non-Hodgkin's lymphoma of bone, diffuse large B cell, right humerus	Human	彰化基督教醫院病理科
213	30	Lymphoma, multi-centric type	Dog	中興大學獸醫系
214	30	CD30 (Ki-1)-positive anaplastic large cell lymphoma (ALCL)	Human	新光醫院病理科
215	30	Lymphoma, mixed type	Koala	台灣大學獸醫學系
217	30	Mucosal associated lymphoid tissue (MALT) lymphoma, small intestine	Cat	臺灣大學獸醫學研究所
	31	Nasal type NK/T cell lymphoma	Human	高雄醫學大學病理科
	31	Acquired immunodeficiency syndrome	Human	慈濟醫院病理科

		(AIDS)with disseminated Kaposi's sarcoma		
	32	Epithelioid sarcoma	Human	彰化基督教醫院病理科
	32	Cutaneous B cell lymphoma, eyelid , bilateral	Human	羅東聖母醫院病理科
	32	Extramammary Paget's disease (EMPD) of the scrotum	Human	萬芳北醫皮膚科病理科
	32	Skin, back, excision, CD30+diffuse large B cell lymphoma, Soft tissue, leg , side not stated, excision, vascular leiomyoma	Human	高雄醫學大學附設醫院病理科
	34	Malignant melanoma, metastasis to intra-abdominal cavity	Human	財團法人天主教耕莘醫院病理科
	34	Vaccine-associated rhabdomyosarcoma	Cat	台灣大學獸醫學系
	34	1. Pleura: fibrous plaque 2. Lung: adenocarcinoma 3. Brain: metastatic adenocarcinoma	Human	高雄醫學大學附設中和醫院病理科
	34	1. Neurofibromatosis, type I 2. Malignant peripheral nerve sheath tumor (MPNST)	Human	花蓮慈濟醫院病理科
	35	Glioblastoma multiforme	Human	羅東聖母醫院
	35	Pineoblastoma	Wistar rat	綠色四季
	35	Chordoid meningioma	Human	高醫病理科
	35	Infiltrating lobular carcinoma of left breast with meningeal carcinomatosis and brain metastasis	Human	花蓮慈濟醫院病理科
	35	Microcystic Meningioma.	Human	耕莘醫院病理科
	36	Well-differentiated fetal adenocarcinoma without lymph node metastasis	Human	新光吳火獅紀念醫院
	36	Adenocarcinoma of lung.	Human	羅東聖母醫院
	36	Renal cell carcinoma	Canine	國立台灣大學獸醫學系 獸醫學研究所
	36	Clear cell variant of squamous cell carcinoma, lung	Human	高雄醫學大學附設中和醫院病理科



	37	Metastatic adrenal cortical carcinoma	Human	耕莘醫院病理科
	37	Hashimoto's thyroiditis with diffuse large B cell lymphoma and papillary carcinoma	Human	高雄醫學大學附設中和醫院病理科
	38	Medullar thyroid carcinoma	Canine	臺灣大學獸醫學系
	39	Merkel cell carcinoma	Human	羅東博愛醫院
	39	Cholangiocarcinoma	Human	耕莘醫院病理科
	39	Sarcomatoid carcinoma of renal pelvis	Human	花蓮慈濟醫院病理科
	39	Mammary Carcinoma	Canine	中興大學獸醫學系
	39	Metastatic prostatic adenocarcinoma	Human	耕莘醫院病理科
	39	Malignant canine peripheral nerve sheath tumors	Canine	臺灣大學獸醫學系
	39	Sarcomatoid carcinoma, lung	Human	羅東聖母醫院
	40	Vertebra,T12,laminectomy, metastatic adenoid cystic carcinoma	Human	彰化基督教醫院
	40	rhabdomyosarcoma	Canine	臺灣大學獸醫學系
	40	Fetal rhabdomyosarcoma	SD Rat	中興大學獸醫學系
	40	Adenocarcinoma, metastatic, iris, eye	Human	高雄醫學大學
	40	Axillary lymph node metastasis from an occult breast cancer	Human	羅東博愛醫院
	40	Hepatocellular carcinoma	Human	國軍桃園總醫院
	40	Feline diffuse iris melanoma	Feline	中興大學獸醫學系
	40	Metastatic malignant melanoma in the brain and inguinal lymph node	Human	花蓮慈濟醫院病理科
	41	Tonsil Angiosarcoma	Human	羅東博愛醫院
	41	Malignant mixed mullerian tumor	Human	耕莘醫院病理科
	41	Renal cell tumor	Rat	中興大學獸醫學系
	41	Multiple Myeloma	Human	花蓮慈濟醫院病理科
	41	Myopericytoma	Human	新光吳火獅紀念醫院
	41	Extramedullary plasmacytoma with amyloidosis	Canine	臺灣大學獸醫學系
	42	Metastatic follicular carcinoma	Human	羅東聖母醫院病理科
	42	Primitive neuroectodermal tumor (PNET), T-spine.	Human	羅東博愛醫院病理科
	42	Hemangioendothelioma of bone	Human	花蓮慈濟醫院病理科

	42	Malignant tumor with perivascular epithelioid differentiation, favored malignant PEComa	Human	彰化基督教醫院
	43	Mucin-producing cholangiocarcinoma	Human	基隆長庚醫院
	43	Cutaneous epitheliotropic lymphoma	Canine	臺灣大學獸醫專業學院
	43	Cholangiocarcinoma	Felis Lynx	臺灣大學獸醫專業學院
	43	Lymphoma	Canine	臺灣大學獸醫專業學院
	43	Solitary fibrous tumor	Human	彰化基督教醫院
	43	Multiple sarcoma	Canine	臺灣大學獸醫專業學院
	44	Malignant solitary fibrous tumor of pleura	Human	佛教慈濟綜合醫院暨慈濟大學
	44	Ectopic thymic carcinoma	Human	彰濱秀傳紀念醫院病理科
	44	Medullary carcinoma of the right lobe of thyroid	Human	彰化基督教醫院病理科
	44	Thyroid carcinosarcoma with cartilage and osteoid formation	Canine	臺灣大學獸醫專業學院
	44	Lymphocytic leukemia/lymphoma	Koala	臺灣大學獸醫專業學院
	45	Neuroendocrine carcinoma of liver	Human	佛教慈濟綜合醫院暨慈濟大學
	45	Parachordoma	Human	羅東博愛醫院病理科
	45	Carcinoma expleomorphic adenoma, submandibular gland	Human	天主教耕莘醫院病理科
	45	Melanoma, tongue	Canine	國立臺灣大學獸醫專業學院
	45	Renal cell carcinoma, papillary type	Canine	國立臺灣大學獸醫專業學院
323	46	Metastatic papillary serous cystadenocarcinoma, abdomen	Human	國軍桃園總醫院
324	46	Malignant gastrointestinal stromal tumor	Human	天主教耕莘醫院
329	47	Sclerosing stromal tumor	Human	彰化基督教醫院
330	47	Pheochromocytoma	Human	天主教耕莘醫院
334	48	Metastatic infiltrating ductal carcinoma, liver	Human	佛教慈濟綜合醫院

335	48	Adenoid cystic carcinoma, grade II, Rt breast	Human	天主教耕莘醫院
336	48	Malignant lymphoma, diffuse, large B-cell, right neck	Human	林新醫院
337	48	Pulmonary carcinoma, multicentric	Dog	國立臺灣大學 獸醫專業學院
338	48	Malignant melanoma, multiple organs metastasis	Rabbit	國立中興大學獸醫學院
340	49	Mucinous-producing urothelial-type adenocarcinoma of prostate	Human	天主教耕莘醫院
342	49	Plexiform fibromyxoma	Human	彰化基督教醫院
343	49	Malignant epithelioid trophoblastic tumor	Human	佛教慈濟綜合醫院
344	49	Epithelioid sarcoma	Human	林新醫院
346	49	Transmissible venereal tumor	Dog	國立臺灣大學獸醫專業學院
347	50	Ewing's sarcoma (PNET/ES tumor)	Human	天主教耕莘醫院病理科
348	50	Malignant peripheral nerve sheath tumor, epithelioid type	Human	林新醫院病理科
349	50	Low grade fibromyxoid sarcoma	Human	高雄醫學大學附設 中和紀念醫院病理科
351	50	Orbital embryonal rhabdomyosarcoma	Dog	Gifu University, Japan (岐阜大学)
354	50	Granular cell tumor	Dog	國立臺灣大學 獸醫專業學院
356	50	Malignant neoplasm of unknown origin, cerebrum	Dog	國立臺灣大學 獸醫專業學院
357	51	Small cell Carcinoma, Urinary bladder	Human	天主教耕莘醫院
364	51	Perivascular epithelioid cell tumor, in favor of lymphangiomyomatosis	Human	高雄醫學大學附設中和 紀念醫院病理科
365	52	Angiosarcoma, skin (mastectomy)	Human	天主教耕莘醫院病理科
366	52	Rhabdomyoma (Purkinjeoma), heart	Swine	屏東縣家畜疾病防治所
368	52	Langerhans cell sarcoma, lung	Human	高雄醫學大學附設中和 紀念醫院病理科
369	52	Biliary cystadenocarcinoma, liver	Camel	國立屏東科技大學獸醫 教學醫院病理科
371	52	Malignant melanoma, nasal cavity	Human	羅東博愛醫院病理科

373	53	Malignant giant cell tumor of tendon sheath	Human	天主教耕莘醫院病理科
376	53	Malignant mesothelioma of tunica vaginalis	Golden hamster	中興大學獸醫病理生物學研究所
377	53	Perivascular Epithelioid Cell Tumor (PEComa) of the uterus	Human	彰化基督教醫院病理部
378	53	Medullary carcinoma	Human	高雄醫學大學病理部
389	55	Mantle cell lymphoma involving ascending colon, cecum, ileum, appendix and regional lymph nodes with hemorrhagic necrosis in the colon and leukemic change.	Human	奇美醫院病理部
390	55	Pulmonary Squamous Cells Carcinoma of a Canine	Dog	國立屏東科技大學獸醫教學醫院病理科
391	55	Squamous cell carcinoma, lymphoepithelioma-like type	Human	高醫附設醫院病理科
393	55	Malignant peripheral nerve sheath tumor (MPNST), subcutis, canine.	Dog	中興大學獸醫學系
394	55	Desmoplastic malignant melanoma (mimic malignant peripheral nerve sheath tumor)	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
397	56	Atypical meningioma	Human	奇美醫院病理科
401	57	Lymph nodes, excision - Hodgkin's lymphoma, mixed cellularity	Human	天主教耕莘醫院
402	57	1. Leukemia, nonlymphoid, granulocytic, involving bone marrow, spleen, liver, heart, lungs, lymph nodes, kidney, hardian gland, duodenum and pancreas. 2. Pinworm infestation, moderate, large intestines. 3. Fibrosis, focal, myocardium.	Mouse	國家實驗動物中心
403	57	Non-secretory multiple myeloma with systemic amyloidosis	Human	佛教慈濟綜合醫院暨慈濟大學病理科
404	57	1. Hepatocellular adenocarcinoma, multifocal, severe, liver 2. Hemorrhage, moderate, acute, body cavity 3. Bumble foot, focal, mild, chronic, food pad	Goose	國立中興大學獸醫病理生物學研究所

		4. cyst and atherosclerosis, chronic, testis		
406	57	Castleman's disease	Human	羅東博愛醫院
407	58	Hepatoid adenocarcinoma of colon with multiple liver metastases	Human	羅東博愛醫院
408	58	Cardiac and pulmonary melanoma	Pig	國立中興大學獸醫病理生物學研究所
409	58	Double Tumors: (1) small cell carcinoma of lung (2) Hodgkin's lymphoma, mixed cellularity type. Acrokeratosis paraneoplastica	Human	佛教慈濟綜合醫院暨慈濟大學病理科
410	58	Von Hippel-Lindau disease	Human	奇美醫院病理部
411	58	Multiple neoplasia	Tiger	國立屏東科技大學獸醫教學醫院病理科
412	58	Hepatocellular carcinoma and multiple myeloma	Human	中山醫學大學醫學系病理學科暨附設醫院病理科
413	59	DEN plus AAF carcinogens induced hepatic tumor in male rats	Rat	中興大學獸醫病理生物學研究所
417	59	Alveolar soft part sarcoma	Human	高雄醫學大學附設中和紀念醫院病理科
418	60	Seminoma associated with supernumerary testicles	Human	羅東博愛醫院
422	61	Retinoblastoma in a baby girl	Human	彰化基督教醫院
423	61	Colloid goiter in a female Radiated tortoise ( <i>Astrochelys radiata</i> )	Tortoise	台灣大學獸醫專業學院分子暨比較病理生物學研究所
424	61	Lymphoepithelial carcinoma in a women	Human	羅東博愛醫院
425	61	Histiocytic sarcoma in a SJL/J mouse	mouse	國家實驗動物中心
428	62	Maligant lymphoma, diffuse large B-cell (DLBCL) in a women	Human	國軍桃園總醫院病理檢驗部
429	62	Immune reconstitution inflammatory syndrome (IRIS)-associated Kaposi's sarcoma in a man	Human	花蓮慈濟醫院
430	62	Mammary adenocarcinoma, tubular form in a female feline	Cat	中興大學獸醫病理生物學研究所

433	62	Rhabdomyosarcoma, retroperitoneal cavity in a female mouse	Mouse	國家實驗動物中心
434	62	Malignant pheochromocytoma with pleural metastasis in a man	Human	天主教聖馬爾定醫院病理科
436	63	Primary non-Hodgkins lymphoma of terminal ileum	Human	國軍桃園總醫院病理檢驗部
438	63	Ectopic thyroid gland tumor	Beagle	台灣大學獸醫專業學院分子暨比較病理生物學研究所
440	63	Hepatocellular cell carcinoma Squamous cell carcinoma	Human	天主教聖馬爾定醫院口腔顎面外科
442	64	Large B cell lymphoma in a man	Human	羅東博愛醫院
444	64	Olfactory neuroblastoma in a female cat	Cat	台灣大學獸醫專業學院分子暨比較病理生物學研究所
445	64	Oligodendroglioma in a man	Human	國軍桃園總醫院病理檢驗部
447	64	Ameloblastoma of mandible in a man	Human	天主教聖馬爾定醫院口腔顎面外科
448	65	EBV associated extranodal NK / T-cell lymphoma, nasal type	Human	羅東博愛醫院
451	65	Mouse, subcutaneously mass – exocrine pancreatic adenocarcinoma, AsPC-1 cells, human origin, heterotopical model	Mouse	國家實驗動物中心
452	65	1. Extranodal NK/T-cell lymphoma, nasal type 2. 2. Regional lymph nodes and omentum are involved.	Human	台中醫院
457	66	Metastatic squamous cell carcinoma (SCC)	Horse	台灣大學獸醫專業學院分子暨比較病理生物學研究所
459	66	Squamous intraepithelial lesion (SIL)	Human	高雄醫學大學附設醫院病理部
460	66	Subcutaneous liposarcoma and uterine endometrial stromal sarcoma	African hedgehog	中興大學獸醫病理生物學研究所

463	67	Splenic undifferentiated pleomorphic sarcoma in a Djungarian hamster	Hamster	國立中興大學獸醫教學醫院鳥禽與野生動物科
465	67	Plasmacytoid urothelial carcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
467	67	1.Poorly differentiated hemangiosarcoma in face 2.Squamous cell carcinoma in ear	Civet	農委會特有生物研究保育中心
473	68	Simple mammary gland adenocarcinoma	Guinea pig	中興大學獸醫病理生物學研究所
476	69	Mediastinum dedifferentiated liposarcoma	Human	羅東博愛醫院
477	69	Uterus adenosarcoma	Hedgehog	中興大學獸醫病理生物學研究所
478	69	Primary pericardial mesothelioma in a woman	Human	佛教慈濟綜合醫院暨慈濟大學病理科
479	69	Pulmonary solid adenocarcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
481	70	Paraganglioma of liver	Human	佛教慈濟綜合醫院暨慈濟大學病理科
482	70	Adenocarcinoma, transmural, recurrent, with desmoplasia and metastasis to regional lymph node, jejunum and ileocecal junction Mast cell tumor, moderately-differentiated, multiple, jejunal and ileocecal masses	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
483	70	Solitary fibrous tumor of pelvis	Human	羅東博愛醫院病理科
484	70	Chronic lymphocytic leukemia, with systemic dissemination, bone marrow, intestine, generalized lymph node, spleen, liver, kidney and lung	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
485	70	Intestine, large, colon, ascending, -- - Carcinoma, poorly differentiated (pT4aN1b). (ADVANCED) 2. Stomach, distal, --- Adenocarcinoma, moderately	Human	秀傳醫療社團法人秀傳紀念醫院

		differentiated (pT1bNO) (EARLY) (Synchronous cancer)		
487	70	Angiomyolipoma of the liver	Human	衛生福利部臺中醫院病理科
490	71	Xp11.2 translocation renal cell carcinoma	Human	羅東博愛醫院病理科
491	71	Anaplastic renal cell carcinoma	Djungarian hamster	國立中興大學獸醫病理生物學研究所
493	71	Mucin-producing urothelial-type adenocarcinoma of the prostate (MPUAP)	Human	天主教耕莘醫療財團法人耕莘醫院
494	71	Left paratesticular dedifferentiated liposarcoma with leiomyomatous differentiation.	Human	天主教耕莘醫療財團法人耕莘醫院
495	71	Renal nephroblastoma, blastema-predominant with metastasis to gingiva, renal mass	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
496	71	Testis, left: Malignant mixed germ cell–sex cord stromal tumor (spermatocytic germinoma and Sertoli cell tumor), with angiolymphatic invasion. Testis, right: Germ cell atrophy, multifocal, moderate.	Dog	長青動物醫院
499	72	Brain, frontal lobe, Lt., Malignant melanoma, consistent with metastatic cutaneous malignant melanoma.	Human	國軍桃園總醫院
501	72	Anaplastic carcinoma thyroid (spindle cell type)	Human	天主教耕莘醫院
502	72	Primitive neuroectodermal tumor (PNET), most likely originating from ureter, with metastasis to liver and involvements of urinary bladder, uterus and left adrenal gland	Formosan serow	臺灣大學獸醫學系
503	72	Metastatic follicular carcinoma	Human	衛生福利部台中醫院
506	73	Type B1 thymoma	Human	天主教耕莘醫院
508	73	Metastatic melanoma	Human	秀傳醫療社團法人秀傳紀念醫院
511	74	Crystal storing histiocytosis associated with multiple myeloma.	Human	羅東博愛醫院病理科



512	74	Myeloid sarcoma	Human	佛教慈濟綜合醫院暨慈濟大學病理科
513	74	Neurolymphomatosis (neurotropic lymphoma), B cell, right musculocutaneous nerve	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
514	74	Primary diffuse large B-cell lymphoma (activated B- cell type) of right testis, Stage IE at least	Human	國防醫學院三軍總醫院病理部
515	74	Thymoma, most likely, mediastinal mass	Dolphin	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
516	74	Extranodal marginal zone lymphoma of mucosa- associated lymphoid tissue (MALT lymphoma)	Human	秀傳醫療社團法人秀傳紀念醫院
517	74	Angioliposarcoma in a Cockatiel	Dog	國立中興大學獸醫病理生物學研究所
520	74	Intravascular diffuse large B cell lymphoma.	Human	國防醫學院三軍總醫院病理部
521	75	Primary anorectal malignant melanoma (PAMM)	Human	國軍桃園總醫院
523	75	Pancreatic panniculitis associated with acinar cell carcinoma	Human	羅東博愛醫院
524	75	Anaplastic large cell lymphoma (ALCL), ALK-negative	Human	秀傳醫療社團法人秀傳紀念醫院
525	75	Canine cutaneous epitheliotropic T-cell lymphoma with the involvement of left axillary lymph node	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
528	75	Basal cell carcinoma with sebaceous differentiation	Human	天主教耕莘醫院
529	76	Tongue, Schwannoma	Human	國軍桃園總醫院
530	76	Amyloid-producing odontogenic tumor	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
531	76	Embryonal rhabdomyosarcoma	Human	花蓮慈濟大學暨慈濟醫院病理科
532	76	Adenocarcinoma, suspected mammary gland tumor metastasis, mass from iris and partially ciliary bodies of right eye	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所

533	76	Kaposi's sarcoma, parotid gland.	Human	羅東博愛醫院病理科
537	77	Primary appendiceal mantle cell lymphoma (MCL), B-cell type, caused acute suppurate appendicitis.	Human	國軍桃園總醫院
538	77	Follicular lymphoma in thyroid of nodular goiter.	Human	羅東博愛醫院
544	78	Ectopic parathyroid adenoma, anterior mediastinum.	Human	羅東博愛醫院
547	79	Glucagonoma, pancreas	Human	羅東博愛醫院
548	79	Neuroendocrine carcinoma, skin	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
549	79	Paraganglioma of urinary bladder	Human	花蓮慈濟大學暨慈濟醫院病理科
550	79	Hepatic carcinoid (Neuroendocrine carcinoma), liver	Cat	霍普獸醫病理診斷中心
551	79	Strumal carcinoid tumor of the ovary (SCTO) arising from mature cystic teratoma	Human	國軍桃園總醫院
552	79	Pheochromocytoma and Associated Cardiomyopathy	Meerkat ( <i>Suricata suricatta</i> )	國立中興大學獸醫病理生物學研究所
553	79	Adrenal, left, laparoscopic adrenalectomy --- Pheochromocytoma, malignant. Staging (pT2)	Human	天主教耕莘醫院
554	80	Carcinoma, sweat gland, with metastases to the lung and cerebrum, the left forelimb 3 <sup>rd</sup> and 4 <sup>th</sup> digits, skin	North American cougar ( <i>Puma concolor couguar</i> )	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
555	80	Angiosarcoma, scalp	Human	羅東博愛醫院
559	80	Sebaceous adenoma	Human	天主教耕莘醫院
560	81	Glioblastoma	Human	天主教耕莘醫院
561	81	Transmissible venereal tumor (TVT)	Dog	霍普獸醫病理診斷中心
562	81	Metastatic small cell carcinoma. Right axillary lymph node.	Human	羅東博愛醫院
563	81	Presumptive chronic myelomonocytic leukemia	Central bearded dragon	國立中興大學獸醫病理生物學研究所

			<i>(Pogona vitticeps)</i>	
564	82	Epithelioid gastrointestinal stromal tumor (GIST)	Human	羅東博愛醫院
566	82	Intestine, small bowel, segmental resection,---Primitive neuroectodermal tumor(PNET) / Extraskeletal Ewing sarcoma Lung, needle biopsy,Small blue cell tumor, compatible with primitive neuroectodermal tumor (PNET) metastasis	Human	衛生福利部台中醫院病理科
567	82	Gastric carcinoma, whit lymphatic infiltration, stomach, dog Lymph node metastasis from gastric carcinoma, dog	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
568	82	Descending colon, adenocarcinoma, grade 2; C/W FAP syndrome associated advanced CRC.	Human	國軍桃園總醫院
569	83	Gastric Schwannoma	Human	羅東博愛醫院
571	83	Feline inductive odontogenic tumor (FIOT), cat	Cat	霍普獸醫病理診斷中心
573	83	Multiple primary malignant (MPM) (Synchronous / metachronous? or metastatic) non-Hodgkin lymphomas (DLBCLs) of the jejunum with JJ intussusception with mesenteric lymph nodal and pleural involvement.	Human	國軍桃園總醫院
574	84	Testicular carcinoid	Human	羅東博愛醫院
577	84	Testis, Lt., Primary diffuse large B-cell lymphoma (DLBCL) / Primary testicular (DLBCL)-PT-DLBCL	Human	國軍桃園總醫院
579	85	Mixed germ cell tumor (seminoma and mature teratoma)	Human	三軍總醫院
580	85	Renal cell carcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
581	85	Leiomyoma with ovarian sex cord-like elements	Human	羅東博愛醫院
582	85	Endometrial stromal sarcoma and endometrial polyp, uterus	Hedgehog	霍普獸醫病理診斷中心
583	85	Uterine papillary serous carcinoma, metastatic	Human	國軍桃園總醫院

585	86	T-cell rich large B-cell lymphoma (TCRLBCL)	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
586	86	Epithelioid sarcoma, right hand.	Human	羅東博愛醫院
587	86	Precursor T-cell lymphoblastic lymphoma (Pre-T LBL, thymic lymphoma)	Mouse	國立中興大學獸醫病理生物學研究所
588	86	Soft tissue, right hypochondriac (flank), excision: Hepatocellular cell carcinoma (HCC), metastatic.	Human	國軍桃園總醫院
590	87	Glandular cardiac myxoma, heart.	Human	羅東博愛醫院
594	88	Malignant pleural mesothelioma	Human	國軍桃園總醫院
597	88	Bronchial carcinoma	Dog	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所

## 細菌

病例編號	會議場次	診 斷	動物別	提供單位
	1	Tuberculosis	Monkey	臺灣大學獸醫學系
7.	1	Tuberculosis	Human	省立新竹醫院
12.	2	H. pylori-induced gastritis	Human	台北病理中心
13.	2	Pseudomembranous colitis	Human	省立新竹醫院
26.	3	Swine salmonellosis	Pig	中興大學獸醫學系
27.	3	Vegetative valvular endocarditis	Pig	台灣養豬科學研究所
28.	4	Nocardiosis	Human	台灣省立新竹醫院
29.	4	Nocardiosis	Largemouth bass	屏東縣家畜疾病防治所
32.	4	Actinomycosis	Human	台灣省立豐原醫院
33.	4	Tuberculosis	Human	苗栗頭份為恭紀念醫院
53.	7	Intracavitary aspergilloma and cavitory tuberculosis, lung.	Human	羅東聖母醫院
54.	7	Fibrocalcified pulmonary TB, left Apex. Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.	Human	林口長庚紀念醫院
58.	7	Tuberculous enteritis with perforation	Human	佛教慈濟綜合醫院

61.	8	Spirochetosis	Goose	國立嘉義農專獸醫科
63.	8	Proliferative enteritis ( <i>Lawsonia intracellularis</i> infection)	Porcine	屏東縣家畜疾病防治所
68.	9	Liver abscess ( <i>Klebsillae pneumoniae</i> )	Human	台北醫學院
	10	Xanthogranulomatous inflammation with nephrolithiasis, kidney, right. Ureteral stone, right.	Human	羅東聖母醫院
	10	Emphysematous pyelonephritis	Human	彰化基督教醫院
89.	10	Severe visceral gout due to kidney damaged Infectious serositis	Goose	中興大學獸醫學系
	13	Listeric encephalitis	Lamb	屏東縣家畜疾病防治所
	13	Tuberculous meningitis	Human	羅東聖母醫院
	16	Swine salmonellosis with meningitis	Swine	中興大學獸醫學系
	16	Meningoencephalitis, fibrinopurulent and lymphocytic, diffuse, subacute, moderate, cerebrum, cerebellum and brain stem, caused by <i>Streptococcus</i> spp. infection	Swine	國家實驗動物繁殖及研究中心
	17	Coliform septicemia of newborn calf	Calf	屏東縣家畜疾病防治所
	20	Porcine polyserositis and arthritis (Glasser's disease)	Pig	中興大學獸醫學院
	20	Mycotic aneurysm of jejunal artery secondary to infective endocarditis	Human	慈濟醫院病理科
	21	Chronic nephritis caused by <i>Leptospira</i> spp	Pig	中興大學獸醫學院
	21	Ureteropyelitis and cystitis	Pig	中國化學製藥公司
	36	Pulmonary actinomycosis.	Human	耕莘醫院病理科
	37	Tuberculous peritonitis	Human	彰化基督教醫院病理科
	38	Septicemic salmonellosis	Piglet	屏東科技大學獸醫系
	38	Leptospirosis	Human	慈濟醫院病理科
	39	Mycobacteriosis	Soft turtles	屏東科技大學獸醫系
	42	<i>Staphylococcus</i> spp. infection	Formosa Macaque	中興大學獸醫病理學研究所

	42	Leptospirosis	Dog	台灣大學獸醫學系
	43	Leptospirosis	Human	花蓮慈濟醫院
	43	Cryptococcus and Tuberculosis	Human	彰濱秀傳紀念醫院
319	46	Placentitis, <i>Coxiella burnetii</i>	Goat	台灣動物科技研究所
321	46	Pneumonia, <i>Burkholderia pseudomallei</i>	Goat	屏東縣家畜疾病防治所
339	48	Mycoplasmosis	Rat	國家實驗動物中心
352	50	<i>Chromobacterium violaceum</i> Septicemia	Gibbon	Bogor Agricultural University, Indonesia
353	50	Salmonellosis	Pig	國立中興大學獸醫學院
367	52	Melioidosis ( <i>Burkholderia pseudomallei</i> ), lung	Human	花蓮慈濟醫院
370	52	Suppurative bronchopneumonia ( <i>Bordetellae trematum</i> ) with <i>Trichosomoides crassicauda</i> infestation	Rat	國立中興大學獸醫學院
374	53	Pulmonary coccidiomycosis	Human	彰化基督教醫院
375	53	Paratuberculosis in <i>Macaca cyclopis</i>	<i>Macaca cyclopis</i>	國立屏東科技大學獸醫學院
379	53	Bovine Johne's disease (BJD) or paratuberculosis of cattle	Dairy cow	屏東縣家畜疾病防治所
380	53	NTB, <i>Mycobacterium abscessus</i>	Human	佛教慈濟綜合醫院暨慈濟大學病理科
382	54	Leptospirosis	Pig	國立屏東科技大學獸醫學院
384	54	<i>Neisseria</i> Infected Pneumonitis	Cat	中興大學獸醫學系
385	54	<i>Mycobacteria avian complex dacryocystitis</i>	Human	花蓮佛教慈濟綜合醫院
387	54	Swine Erysipelas	Pig	屏東縣家畜疾病防治所
396	56	Suppurative meningitis caused by <i>Streptococcus</i> spp in pigs	Pig	國立中興大學獸醫病理生物學研究所
399	56	Listeric encephalitis in dairy goats	Goat	屏東縣家畜疾病防治所
435	63	Tuberculosis	Human	花蓮佛教慈濟綜合醫院
438	63	Porcine proliferative enteritis (PPE)	Pig	國立中興大學獸醫病理生物學研究所
446	64	Actinomycosis (lumpy jaw) in a dairy cattle	Cattle	國立中興大學獸醫病理生物學研究所
450	65	<i>Mycobacterium avium</i> infection	Human	花蓮佛教慈濟綜合醫院
464	67	Ulcerative actinomycotic squamous	Human	嘉義聖馬爾定醫院

		plaque with focal (basal) severe dysplasia, mucosa, gingivobuccal junction, right lower gingiva in a man		
469	68	Scrub typhus	Human	佛教慈濟綜合醫院暨慈濟大學
489	71	Malakoplakia due to Escherichia coli infection, left testis	Human	佛教慈濟綜合醫院暨慈濟大學
492	71	Cystitis, bilateral ureteritis and pyelonephritis, hemorrhagic, necrotic, purulent, severe, diffuse, chronic progressive, urinary bladder, ureters and kidneys	Dog	國立中興大學獸醫病理生物學研究所
522	75	Secondary syphilis	Human	佛教慈濟綜合醫院暨慈濟大學
526	75	Dermatophilosis caused by <i>Austwickia chelonae</i> (basonym <i>Dermatophilus chelonae</i> ) in a free-ranging wild Taiwanese japalure	Taiwanese japalure	台灣大學獸醫學系
584	85	<i>Salmonella</i> Enteritidis Infection in Chicks	Chicks	國立中興大學獸醫病理生物學研究所

## 病毒

病例編號	會議場次	診 斷	動物別	提供單位
21.	3	Newcastle disease	Chicken	台灣大學獸醫學系
22.	3	Herpesvirus infection	Goldfish	台灣大學獸醫學系
30.	4	Demyelinating canine distemper encephalitis	Dog	台灣養豬科學研究所
31.	4	Adenovirus infection	Malayan sun bears	台灣大學獸醫學系
50.	7	Porcine cytomegalovirus infection	Piglet	台灣省家畜衛生試驗所
55.	7	Infectious laryngo-tracheitis (Herpesvirus infection)	Broilers	國立屏東技術學院獸醫學系
69.	9	Pseudorabies (Herpesvirus infection)	Pig	台灣養豬科學研究所
78.	10	Marek's disease in native chicken	Chicken	屏東縣家畜疾病防治所
92.	11	Foot- and- mouth disease (FMD)	Pig	屏東縣家畜疾病防治所
101.	11	Swine pox	Pig	屏東科技大學獸醫學系

	13	Pseudorabies	Piglet	國立屏東科技大學
	13	Avian encephalomyelitis	Chicken	國立中興大學
	15	Contagious pustular dermatitis	Goat	屏東縣&台東縣家畜疾病防治所
	15	Fowl pox and Marek's disease	Chicken	中興大學獸醫學系
	16	Japanese encephalitis	Human	花蓮佛教慈濟綜合醫院
	17	Viral encephalitis, polymavirus infection	Lory	美國紐約動物醫學中心
	17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	19	Enterovirus 71 infection	Human	彰化基督教醫院
	19	Ebola virus infection	African Green monkey	行政院國家科學委員會實驗動物中心
	19	Rabies	Longhorn Steer	台灣大學獸醫學系
	20	Parvoviral myocarditis	Goose	屏東科技大學獸醫學系
	28	SARS	Human	台大醫院病理科
	28	TGE virus	swine	臺灣動物科技研究所
	28	Feline infectious peritonitis(FIP)	Feline	台灣大學獸醫學系
	30	Chicken Infectious Anemia (CIA)	Layer	屏東防治所
219	31	1. Lymph node:Lymphdenitis, with lymphocytic depletion and intrahistiocytic basophilic cytoplasmic inclusion bodies. Etiology consistent with Porcine Circovirus (PCV)infection. 2. Lung: Bronchointerstitial pneumonia, moderate, lymphoplasmacytic, subacute.	Pig	臺灣動物科技研究所
220	31	Cytomegalovirus colitis	Human	彰化基督教醫院病理科
221	31	Canine distemper virus Canine adenovirus type II co-infection	Canine	國家實驗動物繁殖及研究中心
223	32	1. Skin, mucocutaneous junction (lip): Cheilitis, subacute, diffuse, severe, with epidermal pustules, ballooning degeneration, proliferation, and eosinophilic	Goat	台灣動物科技研究所



		intracytoplasmic inclusion bodies, Saanen goat. 2. Haired skin: Dermatitis, proliferative, lymphoplasmacytic, subacute, diffuse, sever, with marked epidermal pustules, ballooning degeneration, acanthosis, hyperkeratosis, and eosinophilic intracytoplasmic inclusion bodies.		
238	35	Hydranencephaly	Cattle	國立屏東科技大學獸醫學系
248	36	Porcine Cytomegalovirus (PCMV) infection	Swine	國立屏東科技大學獸醫學系
250	36	Porcine respiratory disease complex (PRDC) and polyserositis, caused by co-infection with pseudorabies (PR) virus, porcine circovirus type 2 (PCV 2), porcine reproductive and respiratory syndrome (PRRS) virus and Salmonella typhimurium.	Swine	屏東縣家畜疾病防所
255	37	Vaccine-induced canine distemper	gray foxes	國立台灣大學獸醫學系
265	39	Bronchointerstitial pneumonia (PCV II infection)	Swine	台灣大學獸醫學系
295	42	Feline infectious peritonitis (FIP)	Cat	中興大學獸醫病理所
362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
381	54	Polyomavirus infection of urinary tract	Human	羅東博愛醫院
405	57	Porcine circovirus-associated lymphadenitis	Swine	國立屏東科技大學獸醫教學醫院病理科
414	59	Rabies virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科
415	59	Canine distemper virus infection	Dog	台灣大學獸醫專業學院分子暨比較病理生物學研究所
420	60	Respiratory syncytial virus infection	Human	佛教慈濟綜合醫院暨慈濟大學病理科

421	60	Porcine epidemic diarrhea (PED)	Piglet	國立中興大學獸醫病理生物學研究所
455	66	Goose Haemorrhagic Polyomaviruses (GHPV)	Goose	農委會家畜衛生試驗所
456	66	HPV associated small cell neuroendocrine carcinoma of uterine cervix	Human	羅東博愛醫院病理科
458	66	Roventricular dilatation disease (PDD)	Cacatuini	國立中興大學獸醫病理生物學研究所
468	68	Avian poxvirus	Eagle	國立中興大學獸醫病理生物學研究所
472	68	Suspected viral infection with secondary aspergillosis	Parrot	國立中興大學獸醫病理生物學研究所
510	73	Porcine reproductive and respiratory syndrome (PRRS)	pig	國立中興大學獸醫病理生物學研究所
542	78	Feline infectious peritonitis (FIP)	Cat	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
543	78	Porcine epidemic diarrhea (PED)	Pig	國立中興大學獸醫系
556	80	Cutaneous pigeonpox	Pigeon	國立中興大學獸醫系
596	88	Porcine respiratory disease complex	Pig	國立中興大學獸醫系

### 黴菌（含藻類）

病例編號	會議場次	診 斷	動物別	提供單位
23.	3	Chromomycosis	Human	台北病理中心
47.	7	Lung: metastatic carcinoma associated with cryptococcal infection. Liver: metastatic carcinoma. Adrenal gland, right: carcinoma (primary)	Human	三軍總醫院
48.	7	Adiaspiromycosis	Wild rodents	台灣大學獸醫學系
52.	7	Aspergillosis	Goslings	屏東縣家畜疾病防治所
53.	7	Intracavitary aspergilloma and cavitory tuberculosis, lung.	Human	羅東聖母醫院
54.	7	Fibrocalcified pulmonary TB, left Apex.	Human	林口長庚紀念醫院

		Mixed actinomycosis and aspergillosis lung infection with abscess DM, NIDDM.		
105.	13	Mucormycosis Diabetes mellitus	Human	花蓮佛教慈濟綜合醫院
	15	Eumycotic mycetoma	Human	花蓮佛教慈濟綜合醫院
	17	1. Aspergillus spp. encephalitis and myocarditis 2. Demyelinating canine distemper encephalitis	Dog	台灣大學獸醫學系
	43	Systemic Candidiasis	Tortoise	中興大學獸醫學院
	45	Alfatoxicosis in dogs	Canine	國立臺灣大學 獸醫專業學院
322	46	Allergic fungal sinusitis	Human	羅東博愛醫院
326	46	Meningoencephalitis, Aspergillus flavus	Cat	國立臺灣大學 獸醫專業學院
331	47	Histoplasmosis	Human	花蓮慈濟醫院病理科
332	47	Pulmonary Blastomycosis	Rat	中興大學獸醫學院
355	50	Encephalitozoonosis	Rabbit	國立中興大學獸醫學院
356	50	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
386	54	Dermatophytic pseudomycetoma	Cat	台灣動物科技研究所
395	56	Systemic Cryptococcus neoformans infection in a Golden Retriever	Dog	國立台灣大學分子暨比較病理生物學研究所
441	63	Protothecosis	Dog	國家實驗動物繁殖及研究中心
449	65	Porcine epidemic diarrhea (PED)	Pig	國立台灣大學分子暨比較病理生物學研究所
519	75	Chicken infectious anemia in chicken	Chicken	國立中興大學獸醫學院
536	77	Skin infection of Orf virus	Human	佛教慈濟醫療財團法人 花蓮慈濟醫院
545	78	Candida endocarditis	Human	佛教慈濟醫療財團法人 花蓮慈濟醫院
570	83	Protothecosis	Dog	立眾生技有限公司
595	88	Cryptococcosis	Cat	霍普獸醫病理診斷中心

## 寄生蟲 (含原蟲)

病例編號	會議場次	診 斷	動物別	提 供 單 位
14.	2	Dirofilariasis	Dog	台灣省家畜衛生試驗所
15.	2	Pulmonary dirofilariasis	Human	台北榮民總醫院
20.	3	Sparganosis	Human	台北榮民總醫院
46.	7	Feline dirofilariasis	Cat	美國紐約動物醫學中心
49.	7	Echinococcosis	Human	台北榮民總醫院
60.	8	Intestinal capillariasis	Human	台北馬偕醫院
64.	8	Adenocarcinoma of sigmoid colon Old schistosomiasis of rectum	Human	省立新竹醫院
66.	8	Echinococcosis	Chapman's zebra	台灣大學獸醫學系
67.	9	Hepatic ascariasis and cholelithiasis	Human	彰化基督教醫院
	13	Parasitic meningoencephalitis, caused by Toxocara canis larvae migration	Dog	臺灣養豬科學研究所
	17	Disseminated strongyloidiasis	Human	花蓮佛教慈濟綜合醫院
	17	Eosinophilic meningitis caused by Angiostrongylus cantonensis	Human	台北榮民總醫院 病理檢驗部
156	19	Parastrongylus cantonensis infection	Formosan gem-faced civet	中興大學獸醫學院
	19	Capillaria hepatica, Angiostrongylus cantonensis	Norway Rat	行政院農業委員會 農業藥物毒物試驗所
	29	Colnorchiasis	Human	高雄醫學院附設醫院
	29	Trichuriasis	Human	彰化基督教醫院
	29	Psoroptes cuniculi infection (Ear mite)	Rabbit	農業藥物毒物試驗所
	29	Pulmonary dirofilariasis	Human	和信治癌中心醫院
	29	Capillaries philippinesis	Human	和信治癌中心醫院
	29	Adenocarcinoma with schistosomiasis	Human	花蓮佛教慈濟綜合醫院
	41	Etiology-consistent with Spironucleus (Hexamita) muris	Rat	國家實驗動物繁殖及研究中心
327	46	Dermatitis, mange infestation	Serow	中興大學獸醫學院

328	46	Trichosomoides crassicauda, urinary bladder	Rat	國家實驗動物中心
362	51	Canine distemper virus infection combined pulmonary dirofilariasis	Dog	國家實驗研究院
370	52	Suppurative bronchopneumonia (Bordetellae trematum) with Trichosomoides crassicauda infestation	Rat	國立中興大學獸醫學院
416	59	Toxoplasmosis in a finless porpoise	Finless porpoise	國立屏東科技大學獸醫教學醫院病理科
	63	Liver milk spots in pig	Pig	中興大學獸醫病理生物學研究所
453	66	Liver fluke infection	Buffalo	中興大學獸醫病理生物學研究所
471	68	Haemosporidian parasite infection	pigeon	國立台灣大學分子暨比較病理生物學研究所
540	77	Systemic toxoplasmosis	Ring-tailed lemur	國立台灣大學分子暨比較病理生物學研究所
4.	1	Cryptosporidiosis	Goat	台灣養豬科學研究所
15.	2	Amoebiasis	Lemur fulvus	台灣養豬科學研究所
16.	2	Toxoplasmosis	Squirrel	台灣養豬科學研究所
17.	2	Toxoplasmosis	Pig	屏東技術學院 獸醫學系
51.	7	Pneumocystis carinii pneumonia	Human	台北病理中心
57.	8	Cecal coccidiosis	Chicken	中興大學獸醫學系
65.	8	Cryptosporidiosis	Carprine	台灣養豬科學研究所
211	30	Avian malaria, African black-footed penguin	Avian	臺灣動物科技研究所
242	35	Neosporosis	Cow	國立屏東科技大學 獸醫學系
263	38	Intestinal amebiasis	Human	彰化基督教醫院病理科
320	46	Cutaneous leishmaniasis	Human	佛教慈濟綜合醫院
325	46	Myocarditis/encephalitis, Toxoplasma gondii	Wallaby	國立臺灣大學獸醫專業學院
443	65	Brain toxoplasmosis in a man	Human	佛教慈濟綜合醫院病理科
462	67	Toxoplasmosis	Human	佛教慈濟綜合醫院病理科

470	68	Leucocytozoonosis	chickens	中興大學獸醫病理生物學研究所
572	83	Systemic Coccidiosis	ducks	中興大學獸醫病理生物學研究所

### 立克次體

病例編號	會議場次	診斷	動物別	提供單位
229	32	Necrotizing inflammation due to scrub typhus	Human	佛教慈濟醫院病理科
251	36	Scrub typhus with diffuse alveolar damage in bilateral lungs.	Human	佛教慈濟醫院病理科

### 其他

病例編號	會議場次	診斷	動物別	提供單位
216	30	Cytophagic histiocytic panniculitis with terminal hemophagocytic syndrome	Human	佛教慈濟綜合醫院病理科
359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
9.	2	Perinephric pseudocyst	Cat	台灣大學獸醫學系
10.	2	Choledochocyst	Human	長庚紀念醫院
11.	2	Bile duct ligation	Rat	中興大學獸醫學系
37.	4	Myositis ossificans	Human	台北醫學院
75.	9	Acute yellow phosphorus intoxication	Rabbits	中興大學獸醫學系
76.	10	Polycystic kidney bilateral and renal failure	Cat	美國紐約動物醫學中心
80.	10	Glomerular sclerosis and hyalinosis, segmental, focal, chronic, moderate Benign hypertension	SHR rat	國防醫學院 & 國家實驗動物繁殖及研究中心
83.	10	Phagolysosome-overload nephropathy	SD rats	國家實驗動物繁殖及中心
85.	10	Renal amyloidosis	Dog	台灣養豬科學研究所

89.	10	Severe visceral gout due to kidney damaged infectious serositis	Goose	中興大學獸醫學系
91.	10	Hypervitaminosis D	Orange-rumped agoutis	台灣大學獸醫學系
	14	Cystic endometrical hyperplasia	Dog	臺灣養豬科學研究所
	14	Cystic subsurface epithelial structure (SES)	Dog	國科會實驗動物中心
	15	Superficial necrolytic dermatitis	Dog	美國紐約動物醫學中心
	15	Solitary congenital self-healing histiocytosis	Human	羅東博愛醫院
	15	Alopecia areata	Mouse	國家實驗動物繁殖及研究中心
	17	Avian encephalomalacia (Vitamin E deficiency)	Chicken	國立屏東科技大學獸醫學系
151	18	Osteodystrophia fibrosa	Goat	台灣養豬科學研究所&台東縣家畜疾病防治所
	20	Hypertrophic cardiomyopathy	Pig	台灣大學獸醫學系
	21	Chinese herb nephropathy	Human	三軍總醫院病理部及腎臟科
	21	Acute pancreatitis with rhabdomyolysis	Human	慈濟醫院病理科
	21	Malakoplakia	Human	彰化基督教醫院
	25	Darier's disease	Human	高雄醫學大學病理科
191	27	1. Polyarteritis nodosa 2. Hypertrophic Cardiomyopathy	Feline	台灣大學獸醫學系
193	27	Norepinephrin cardiotoxicity	Cat	台中榮總
196	27	Cardiomyopathy (Experimental)	Mice	綠色四季
212	30	Kikuchi disease (histiocytic necrotizing lymphadenitis)	Lymphadenitis	耕莘醫院病理科
225	32	Calcinosis circumscripta, soft tissue of the right thigh, dog	Dog	台灣大學獸醫所
230	34	Hemochromatosis, liver, bird	Bird	台灣大學獸醫學系
234	34	Congenital hyperplastic goiter	Holstein calves	屏東縣家畜疾病防治所
236	34	Hepatic lipidosis (fatty liver)	Rats	中興大學獸醫學病理學研究所
237	35	Arteriovenous malformation (AVM) of cerebrum	Human	耕莘醫院病理科
244	35	Organophosphate induced delayed neurotoxicity in hens	Hens	中興大學獸醫學病理學研究所

257	37	Severe lung fibrosis after chemotherapy in a child with Ataxia- Telangiectasia	Human	慈濟醫院病理科
294	42	Arteriovenous malformation of the left hindlimb	Dog	台灣大學獸醫學系
299	43	Polioencephalomalacia	Goat kid	屏東家畜疾病防治所
310	44	Hyperplastic goiter	Piglet	屏東家畜疾病防治所
311	44	Melamine and cyanuric acid contaminated pet food induced nephrotoxicity	Rat	中興大學獸醫學病理學研究所
318	45	Alfatoxicosis	Canine	國立臺灣大學獸醫專業學院
333	47	Lordosis, C6 to C11	Penguin	國立臺灣大學獸醫專業學院
341	49	Pulmonary placental transmogrification	Human	羅東博愛醫院
345	49	Acute carbofuran intoxication	Jacana	國立中興大學獸醫學院
350	50	Malakoplakia, liver	Human	慈濟綜合醫院暨慈濟大學
351	50	Eosinophilic granuloma, Right suboccipital epidural mass	Human	羅東博愛醫院病理科
359	51	Eosinophilic granuloma with fungal infection, Skin	Cat	國立臺灣大學獸醫專業學院
360	51	Septa panniculitis with lymphocytic vasculitis	Human	慈濟綜合醫院暨慈濟大學
361	51	Hepatotoxicity of SMA-AgNPs	Mouse	國立中興大學獸醫病理生物學研究所
363	51	Hypertrophy osteopathy	Cat	國立臺灣大學獸醫專業學院
372	52	Snake bite suspected, skin and spleen	Monkey (red guenon)	國立臺灣大學獸醫專業學院
383	54	Langerhans cell histiocytosis	Human	聖馬爾定醫院病理科
388	54	Canine protothecosis	Dog	國立臺灣大學獸醫專業學院
392	55	Lithium nephrotoxicity	Human	佛教慈濟綜合醫院暨慈濟大學病理科
398	56	Gamma-knife-radiosurgery-related demyelination	Human	佛教慈濟綜合醫院暨慈濟大學病理科



400	56	Canine Disseminated form Granulomatous Meningoencephalitis (GME)	Dog	國立屏東科技大學獸醫 教學醫院病理科
419	60	Mucopolysaccharidosis	Cat	國立中興大學獸醫病理 生物學研究所
426	61	Phleboliths in a man	Human	台北醫學大學附設醫院 口腔外科口腔病理科
427	61	Visceral gout in a Green iguana (Iguana iguana)	Iguana	中興大學獸醫病理生物 學研究所
431	62	pulmonary alveolar proteinosis in a man	Human	羅東博愛醫院病理科
432	62	Congenital pulmonary airways malformation, type 2 in a women	Human	高雄醫學大學附設醫院
437	63	Large solitary luteinized follicular cyst of pregnancy and puerperium	Human	羅東博愛醫院病理科
454	66	Eosinophilic granuloma	Human	佛教慈濟綜合醫院暨慈 濟大學病理科
461	67	Intestinal emphysema	Pig	中興大學獸醫病理生物 學研究所
466	67	Nodular goiter	Human	彰化秀傳醫院病理科
474	68	Parastrongyliasis (Previously called Angiostrongyliasis)	squirrel	中興大學獸醫病理生物 學研究所
475	69	Bronchogenic cyst	Dog	國立臺灣大學獸醫專業 學院
480	69	Toxic pneumonitis caused by inhalation of waterproofing spray	Dog	中興大學獸醫學病理學 研究所
486	70	IgG4-related sclerosing cholangitis (ISC)	Human	天主教耕莘醫療財團法 人耕莘醫院
488	70	Crohn's disease	Human	彰化基督教醫院病理部
Gross	64	Hydronephrosis	Pig	中興大學獸醫病理生物 學研究所
Gross	65	1. Traumatic pericarditis, severe, chronic progressive, diffuse, heart. 2. Hardware disease	Cattle	中興大學獸醫病理生物 學研究所
497	72	Combined central and peripheral demyelination (CCPD)	Dog	國立臺灣大學獸醫專業 學院
498	72	Inflammatory demyelinating pseudotumour	Human	佛教慈濟綜合醫院暨慈 濟大學病理科

500	72	Ischemic stroke in a dog	Dog	中興大學獸醫病理生物學研究所
504	73	Autoimmune pancreatitis (IgG4 related pancreatitis)	Human	羅東博愛醫院病理科
505	73	Thrombotic microangiopathy with hemorrhagic infarct of brain, acute myocardial ischemia and acute kidney injury	Human	佛教慈濟綜合醫院暨慈濟大學病理科
507	73	The most likely diagnosis is erythema multiforme (EM).	Dog	國立臺灣大學獸醫專業學院
509	73	Doxorubicin-induced diseases	Chicken	中興大學獸醫病理生物學研究所
518	74	Idiopathic multicentric Castleman disease with abundant IgG4-positive cells	Human	佛教慈濟綜合醫院暨慈濟大學病理科
527	75	Coryneform hyperkeratosis in NOG mice	Mice	中興大學獸醫病理生物學研究所
534	76	Multiple Cartilaginous Exostoses Causing Spinal Cord Compression in a Dog	Dog	中興大學獸醫病理生物學研究所
535	76	Chondrodysplasia, diffuse, severe, chronic, growth plate, femur.	Rat	中興大學獸醫病理生物學研究所
539	77	Epitheliotropic mastocytic conjunctivitis	Cat	臺灣動藥國際股份有限公司
541	77	Protothecosis	Dog	國立臺灣大學獸醫專業學院
546	78	Ascites syndrome in broilers	Avian	國立中興大學動物疾病診斷中心
557	80	Systemic lupus erythematosus with erythema multiforme-like lesions, human	Human	佛教慈濟綜合醫院暨慈濟大學病理科
558	80	Pododermatitis, left forelimb and right hindlimb foot pad	Cat	霍普獸醫病理診斷中心
565	82	Intestinal intramural hemorrhage/hematoma, small intestine	Dog	霍普獸醫病理診斷中心
575	84	Ovotestes, epididymis, and uterus, reproductive organs	Cat	霍普獸醫病理診斷中心
576	84	Oxalate nephropathy	Asian yellow pond turtle (柴棺龜)	國立中興大學獸醫病理生物學研究所

			Mauremys mutica)	
578	84	Yolk embolism	Savannah monitor	國立台灣大學獸醫專業學院分子暨比較病理生物學研究所
589	87	Portosystemic shunt	feline	霍普獸醫病理診斷中心
591	87	Fabry disease	human	三軍總醫院病理科
592	87	Atherosclerosis	mouse	財團法人國家實驗研究院國家實驗動物中心
593	88	Minute pulmonary meningothelial-like nodules	human	羅東博愛醫院

## 會員資料更新服務

各位會員：

您好！如果您的會員資料有更新或誤刊情形，麻煩您填妥表格後寄回學會秘書處或電話連絡：

中華民國比較病理學會秘書處

張晏禎 助理教授

cscptaiwan@gmail.com

02-33663873

106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院

-----中華民國比較病理學會-----

會員資料更改卡

姓 名：\_\_\_\_\_ 會員類別：一般會員

學生會員

贊助會員

最高學歷：\_\_\_\_\_

服務單位：\_\_\_\_\_ 職 稱：\_\_\_\_\_

永久地址：\_\_\_\_\_

通訊地址：\_\_\_\_\_

電 話：\_\_\_\_\_ 傳 真：\_\_\_\_\_

E-Mail Address：\_\_\_\_\_

中華民國比較病理學會

誠摯邀請您加入

## 入會辦法

一、 本會會員申請資格為：

(一) 一般會員：贊同本會宗旨，年滿二十歲，具有國內外大專院校（或同等學歷）生命科學及其它相關科系畢業資格或高職畢業從事生命科學相關工作滿兩年者。

(二) 學生會員：贊同本會宗旨，在國內、外大專院校生命科學或其他相關科系肄業者（請檢附學生身份證明）。

(三) 贊助會員：贊助本會工作之團體或個人。

(四) 榮譽會員：凡對比較病理學術或會務之推廣有特殊貢獻，經理事會提名並經會員大會通過者。

二、 會員：

(一) 入會費：一般會員新台幣壹仟元，學生會員壹佰元，贊助會員伍仟元，於入會時繳納。

(二) 常年會費：一般會員新台幣壹仟元，學生會員壹佰元。

【註：學生會員身份變更為一般會員時，只需繳交一般會員之常年會費】

三、入會費及常年會費繳交方式：以銀行轉帳或匯款（006 合作金庫銀行、帳號：0190-717-052017、戶名：中華民國比較病理學會）；並請填妥入會申請表連同銀行轉帳交易明細表或匯款單以郵寄或傳真方式寄回中華民國比較病理學會秘書處 張晏禎 老師收。地址：106 台北市羅斯福路四段一號 國立台灣大學 獸醫專業學院

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