# NEWSLETTER

School of Veterinary Medicine City University of Hong Kong

香港城市大學動物醫學院 通訊

ISSU[| <sub>第一期</sub>







Cornell University College of Veterinary Medicine







### Message from the Deans 院長的話

In its Sesquicentennial year, Cornell is excited and proud to partner with the dynamic and innovative City University of Hong Kong (CityU) to establish the first School of Veterinary Medicine in Hong Kong. Animal health and welfare is at the core of food security and food safety, and the protection of human health through prevention and control of zoonotic diseases, issues of fundamental importance to Hong Kong and greater Asia.

Through its 150 years of experience as a leader and innovator in veterinary medicine, Cornell is well positioned to help develop a centre of excellence for animal health and welfare in Hong Kong that creates new knowledge of benefit to all of earth's creatures, trains professionals to prevent and treat animal diseases, and impacts the lives of animals and people through the clinical services, diagnostic testing, and continuing education.

Over the next decade there will be increasing demand in Asia for veterinary services and enormous opportunities for Hong Kong citizens in all areas of animal health. Cornell looks forward with great enthusiasm to working with CityU to build the region's leading college of veterinary medicine and advancing the well being of animals and people.

> Professor Michael Kotlikoff Dean of Veterinary Medicine Cornell University

踏入150周年,康奈爾大學能夠與充滿活力及創意的香港城 市大學(城大)成為合作夥伴,在香港成立第一所動物醫學 院,深感振奮及自豪。動物健康及福利是食物保安及安全的 核心部分;透過預防及控制人畜共患傳染病,保障人類健康 ,對香港及亞洲地區甚為重要。

在動物醫學累積150年的領導及創新經驗,康奈爾大學於有 利的位置在香港發展卓越的動物健康及福利中心,創造新知 識,為全球的生物帶來福祉,亦會積極培育專業人員去預防 及應對動物疾病,並透過診所、化驗測試及持續教育等服務 ,改善人類及動物生活。

展望未來10年,亞洲區對動物醫學服務的需求將與日俱增 ,香港市民亦有大量的機會發展動物健康範疇。康奈爾大學 熱切期待與城大合作在區內建立首屈一指的動物醫學院,致 力促進動物及人類的健康。



康奈爾大學 動物醫學院院長 Michael Kotlikoff 教授



I am excited to join this fantastic team of enthusiasm and excellence in veterinary medicine, made up of the world renowned veterinary school at Cornell, and the excellent and committed staff at City University of Hong Kong.

Having just been involved in setting up a new accredited veterinary school in Australia, I am aware of the challenges, but also of the immense opportunities that such a venture presents to the students and profession, the city and the region.

A lot has already been achieved, and the partnership with Cornell's veterinary school has been pivotal to these achievements and will be in the years to come. The drive and enthusiasm at City University, from the very senior levels of the university to the staff in the newly established School of Veterinary Medicine will stand us in good stead in time to come, I am looking forward to being part of that team and seeing our plans through to fruition.

#### Professor Michael Reichel

Acting Dean, School of Veterinary Medicine City University of Hong Kong

能夠加入優秀、充滿熱誠的動物醫學團隊-由世界知名 的康奈爾大學及香港城市大學傑出及投入的人員組成, 我深感興奮。在澳洲,我剛剛參與了一所新獲認證的動 物醫學院成立工作,我充分了解箇中挑戰,但也知道這 是一個難能可貴的機會,可以向地區、城市、業界及同 學等展現這個嶄新項目。

城大動物醫學院已進行不少工作,與康奈爾大學的策略 合作更是關鍵部分,展望未來定當獲得更多成就。城大 不論位居策劃的大學管理層,以至新成立的動物醫學院 人員,都充滿活力和熱忱,讓我們在有利位置開創前景 。我期待成為團隊中的一分子,並將學院的策劃,發展 成各項成就。



香港城市大學 動物醫學院署理院長

Michael Reichel 教授





### Specimens of Omura's Whale to be on Display at CityU

The School of Veterinary Medicine (SVM) at City University of Hong Kong (CityU) is turning the skeletons of an 11-metre Omura's whale into specimens which are expected to be available on display at CityU by the end of 2015. The skeleton specimen will be the biggest animal specimen in Hong Kong.

The dead Omura's whale was found beached in an inner bay off Hung Shek Mun in Tai Po of Hong Kong in March 2014 and was the first recorded Omura's whale to be found stranded in Hong Kong. The whale was earlier thought to be a female Bryde's, however Ocean Park Hong Kong sent the whale's skin and subcultaneous fat tissues to The National Oceanic and Atmospheric Administration (NOAA) in United States for DNA test and confirmed that it was an Omura's whale.

Dr Howard Wong Kai-hay, Executive Director of Professional Veterinary Education and Development of SVM said that the Omura's whale specimen is very rare. There are less than 10 specimens of Omura's whale across the globe and only Taiwan and Japan in East Asia have such specimens, even the US doesn't have one.

With the rareness of the whale and record length of the carcass, it is of particularly high value for purposes of science studies and teaching. SVM decided to take part in handling the dead body, aiming to foster local citizens' knowledge in related discipline through veterinary medical studies. Dr Wong said that whales are rarely spotted in Hong Kong, regardless of their species. The impression most Hong Kong people have for the whales is only obtained through television programmes, the internet, or books. As such, there's always a distance between the impression and the reality of what whales are like.

Due to the huge size of the carcass, SVM did not preserve its muscles and organs, and retained only the bones for the production of the skeleton." If we could make a skeleton specimen, it could be presented in close vicinity in front of students, and even allow them to touch it with their hands. I sincerely believe this would be a rare learning experience, and may bring infinite amounts of inspiration for students." Dr Wong added.

Removing flesh from the carcass was the most difficult part of the process which was a tough, physically exhausting and emotionally draining experience for everyone involved. "We had only three days to cut tonnes of flesh away from the carcass. We needed to work regardless of the heavy rain, low temperatures, not to say the extremely strong smell. The odour was probably a once-in-a-lifetime experience," said Dr Wong.

The whale project saw CityU collaborate with the Agriculture, Fisheries and Conservation Department of the Hong Kong Government.

After cut the carcass into pieces, he and his team transported the huge bones by ship, lorry and cable crane to Lantau for further processing. Dr Wong said that there is no standard formula or practice for turning whale bones into a specimen. Hence, by drawing experts' experience from Europe, the US and Australia, he and his team tried to get rid of the bone's oil and fat by a combination of techniques. "We have cleaned the bones by using various techniques including biological maceration, soaking, desiccation and boiling."

Dr Wong and his team boiled each of the whale bones under high temperature for 10 to 20 times and the skull for nearly 100 times to remove the fats. They have checked the progress regularly, including pH values and temperatures of the soaking liquid, measuring the weight of the different bones of the skeleton. "We need to monitor the progress and status of the bones closely, such as how much of the oil in the bones has leaked out, so that we can plan ahead for the next step," he said.

"The procedures will be recorded and the results will be shared online for reference in the future," Dr Wong added.





The Omura's whole (Scientific name: Balaenoptera omurai) is an endangered species but the exact population size is unknown due to lack of data. Omura's whale appears to be restricted to the waters of tropical and subtropical regions, with records from the eastern Indian Ocean, (Thailand, and Malaysia), Indonesia, the Philippines, China, Taiwan and Japan. Its major food sources are krill, copepods and small fish.

角島鯨 是一個瀕危滅絕的物種,但因相關資料有限, 未能確定現存實際數目。牠們多出現於熱帶或亞熱帶海洋,例如東印度洋(泰國、馬來西亞)、印尼、菲律賓、中國、台彎、日本等海域。角島鯨的主要食物為磷蝦、橈足類生物及小魚。



### 城大將展示角島鯨骨標本

香港城市大學(城大)動物醫學院正努力將一條11 米長的角島鯨骨處理成標本,期望可以於2015年 底展出,屆時可望成為香港有記錄以來最大的哺乳 類動物標本。

在 2014年3月,該角島鯨於大埔紅石門被發現,為 香港有史以來第一宗角島鯨擱淺個案。當時,專家 一度以為是雌性鬚鯨,其後香港海洋公園將鯨的皮 膚及皮下脂肪組織送往美國國家海洋和大氣管理局 化驗,方證實為角島鯨。

動物醫學院專業教育及發展總監<mark>王啟熙獸醫</mark>表示, 角島鯨標本甚為罕有,全球不足十個,只有台灣、 日本貯有標本,連美國也沒有。

由於品種罕有,加上鯨骨有一定的長度,具有極高 的科學研究及教學價值,學院遂決定參與處理鯨屍 的工作,以增加香港市民對相關領域的認識。王獸 醫表示,不論任何品種的鯨在香港都甚為罕見,市 民對鯨的印象只是經電視節目、互聯網或書本而來 ;相信眾人印象中的鯨,與真實的存在相當距離。

該鯨身軀龐大,學院無法保留肌肉及內臟,只能夠 保存骨骼,並製成標本。「如果我們可以成功製成 骨骼標本,在學生面前近距離展現,甚至讓他們用 手去接觸,我深信這是一種難得的學習體驗,並可 以為學生帶來無限啟發。」王獸醫說。

將鯨「骨肉分離」是最困難的工序,對每個參與工 作的成員來說,這次艱巨的經歷並不輕鬆,令人身 心俱疲。「我們要在短短三天內,清除鯨屍上的幾 噸肉,所以只能趕快去做,不管是下著大雨,還是 氣溫很低,至於鯨屍的惡臭也不管了。然而那種臭 味可能是一輩子只會聞一次的氣味。」王獸醫說。 該項目是城大與漁農自然護理署合作進行的。

將鯨屍切成碎塊後,團隊用船、卡車與吊車把巨大 的鯨骨運送到大嶼山,再作其他處理。」王獸醫表 示,現時沒有統一標準或做法去處理鯨骨標本。團 隊參考歐洲、美國及澳洲經驗,並利用不同的方法 將鯨骨內的油脂去除。「我們同時使用了好幾種技 術,包括生物浸軟、浸泡、乾燥、加熱,其中加熱 是最重要的方式。」 王獸醫及團隊以高溫浸泡鯨骨10至20次,其中頭部更 要近100次,又要定期檢查計劃進度,包括查看浸泡液 的酸鹼值與溫度,測量各塊骨頭的重量。「我們要密切 留意鯨骨骼標本的製作進展和狀態,比如説,骨骼裡有 多少油脂流了出來,這樣我們才能提前做好規劃。」

「我們會好好記錄鯨骨的處理過程,未來亦會將結果在 互聯網上與公眾分享。」王獸醫總結說。



The size of the skull of Omura's whale is nearly equal to a human body. 角島鯨頭顱大小幾乎與人體相若。





Dr Howard Wong (right) and Dr Richard Brown dissect the whole's carcass on the beach. 王啟熙獸醫(右)與彭偉澤獸醫在石灘上處理鯨屍。

The Omura's head is uplifted for transport from the marine police pier to Lantau. 角島鯨骨運送至水警碼頭。

The skull of the Omura's whale is put into a tank for processing. 角島鯨頭顱放置於大型水缸內進行各項處理程序。



### Collaborating with Longgang to Advance Veterinary Medicine

A memorandum of understanding (MOU) was signed between City University of Hong Kong (CityU) and Longgang District Government of Shenzhen in November 2014. The MOU will strengthen collaboration in higher education, veterinary medicine, new technology development, international technology transfer and other areas.

Professor Way Kuo, CityU President, and Mr Feng Xianxue, Director and Deputy Secretary for Longgang District Party Committee, signed the MOU on behalf of CityU and Longgang District Government, respectively.

The MOU covers three major areas: (a) laying a foundation for the comprehensive development of CityU's School of Veterinary Medicine (SVM), including the teaching of its programmes and conducting feasibility studies for setting up laboratories for animal hygiene and food safety; (b) further development of the international technology transfer platform at CityU (Shenzhen), including collaboration with Stanford University to set up an alliance for international technology transfer; and (c) further development of the research base at the CityU (Shenzhen) Research Institute Building by bringing in CityU's research teams on advanced materials, nanotechnology, low-carbon energy and creative media to work at the base.

Guests attending the signing ceremony included Professor Lujian, CityU Vice-President (Research and Technology) Mr Sunny Lee Wai-kwong, Vice-President (Administration); Professor Paul Lam Kwan-sing, Chief-of-Staff; Mr David Ai Chuan, Director of Knowledge Transfer Office; Dr Howard Wong Kai-hay, Executive Director of Professional Veterinary Education and Development in SVM.

#### 與深圳龍崗區政府加強合作 <sub>促進動物醫學發展</sub>

香港城市大學(城大)2014年11月與深圳市龍崗區政府簽 訂合作備忘錄,雙方將在原有基礎上,加強在高等教育、科 技金融創新、動物醫學、新型科研建設、國際技術轉移等方 面的合作。

城大校長<mark>郭位教授</mark>、龍崗區區長、中共黨委副書記馮現學先 生分別代表城大和龍崗區政府在備忘錄上簽字。備忘錄涵蓋 三大範疇:一是完善城大動物醫學院的建設,包括促進動物 醫學的教學,並啟動建立動物衛生及食品安全診斷等實驗室 的可行性研究,為全面建成動物醫學院而奠定基礎;二是推 進城大(深圳)國際技術轉移平台的建設,包括與美國斯坦 福大學合作設立國際技術轉移聯盟;三是推進城大(深圳) 產學研基地的建設,包括將城大的先進材料、納米技術、低 碳能源、創意媒體等研究團隊引入該基地運作。

出席簽字儀式的嘉寳還有:城大副校長(研究及科技) **呂堅** 教授、副校長(行政)李惠光先生、秘書長林群聲教授、知 識轉移處處長<del>艾荃先生、</del>動物醫學院專業教育及發展總監王 啟熙獸醫等。



CityU's senior management exchanged ideas with representatives of Longgang District Government. 城大管理層與龍崗區政府代表舉行座談及交流。



Emerging Technologies Forum -Veterinary Science and Medicine

Experienced veterinarians and related researchers introduced the latest diagnostic technology and medical treatment for animals, and discussed the market development of the veterinary industry in a forum co-organised by the School of Veterinary Medicine and the Knowledge Transfer Office at City University of Hong Kong in September 2014. Nearly 100 veterinarians and related veterinary and life science researchers attended the forum.

Titled "Emerging Technologies Forum – Veterinary Science and Medicine", the forum introduced the latest information of veterinary technologies and diagnostic tools and instruments. Dr Paolo Martelli, Chief Veterinarian of Ocean Park Hong Kong said that specialists will set up instruments to collect data from wild animals and may also use technologies to aid treatment, including using flying devices to inject medicine into target animals for higher success rate.

Dr Michael Hurley, Veterinary Surgeon of the Hong Kong Jockey Club, indicated that the Club has applied dynamic medical technologies in recent years. For example, dynamic endoscopy has been used to enable veterinarians to perform real-time examinations for horses without affecting their daily activities. It helps veterinarians make an accurate diagnosis. Also, dynamic imaging technology such as gamma cameras can more accurately find the location of fracture.

Technologies can be used not only to deal with specific diseases, but also to understand common diseases of a species of animals from a macro perspective. **Dr Adam Boyko**, Assistant Professor at Cornell University, makes use of genetic mapping to analyse the traits and features of various kinds of dogs such as their stature, nerve cord and brain cells. **Dr Anthony James**, Veterinarian of the Laboratory Animal Research Center at Qatar University, described scientific data on cortisol and animal responses used to evaluate the emotions of animals.

Dr Michael Hurley is an equine veterinary surgeon with over 20 years international experience in the Thoroughbred racing industry. He has a particular interest in the use of cutting-edge veterinary technologies for the diagnosis of lameness and the evaluation of poor performance in Thoroughbred racehorses.

Michael Hurley 默醫擁有20年國際純種馬賽事經驗,他善於 利用尖端動物醫學技術診斷純種馬匹的不足,以及表現未如 理想的原因。

Dr Adam Boyko is an academic whose research focuses on canine genomics, including canine domestication, genome structure, trait mapping, and the genetic diversity of free-ranging "village" dogs.

Adom Boyko 博士專注犬類基因組研究,包括犬類馴化、基因結構、性狀定位、放養犬的基因多樣性等。

### **崛起的科技論壇**: 動物科學及醫學

城大動物醫學院與知識轉移處首次合辦論壇,邀請資深獸醫及 相關研究人員,向近百名獸醫、動物醫學、生命科學等相關科 研人員介紹最新的醫學技術,解構市場發展空間。

論壇於2014年9月舉行,以「崛起的科技論壇:動物科學及醫學」為主題,從不同角度分享最新的動物醫學技術、診斷工具 及儀器資訊。香港海洋公園首席獸醫馬伯樂博士指出,人員在 野外動物設置儀器收集數據,亦會利用科技協助治療,包括以 飛行裝置向目標動物注射藥物,以提升成功率。

香港賽馬會Michael Hurley默醫表示,賽馬會近年引入互動醫療 技術,首先是互動內窺鏡,讓人員可以實時檢查馬匹,不受其 活動影響,從而更全面了解其器官或肌肉的操作並對症下藥; 還有利用伽瑪照相機準確地查找骨裂或骨折處等。

即使不針對單一病患或傷處,科技亦可以從宏觀角度了解動物 族群的常見疾病。美國康奈爾大學Adam Boyko助理教授便利 用疾病製圖去分析不同狗種的遺傳或衍生特徵,範圍涵蓋體型 、神經腺發展、腦細胞等。而卡塔爾大學動物研究中心 Anthony James獸醫則介紹以科學數據例如腎上腺皮質醇、動 物反應等,評估動物的情緒。



Speakers at the forum. 論壇的主講嘉賓。

Dr Paolo Martelli, is an experienced zoological veterinarian with extensive expertise in the medical and surgical treatment of mammals, reptiles and birds, and the administration and management of zoo-based veterinary clinics.

馬伯樂博士是資深動物園獸醫,對治理哺乳類、爬蟲類及鳥類動物,對管理動物園診所等範疇,有豐富的經驗。

Dr Anthony James is a veterinarian with 27 years' experience in laboratory animals. He has published papers on animal research law, animal care, and animal welfare and ethics.

Anthony Jomes 默醫參與實驗室動物工作長達27年;他曾經就動物實驗法例、動物照顧、動物福利及道德等出版學術文章。



### Professional Programme on Orthopaedics 專業課程 - 最新骨科手術技巧

Over 40 veterinarians practised new fracture fixation techniques which they acquired during a series of lectures and workshops held by School of Veterinary Medicine (SVM) of City University of Hong Kong (CityU) in October 2014.

The lectures and workshops were hosted by **Dr Kei Hayashi**, Associate Professor of Surgery at the College of Veterinary Medicine, Cornell University. During Dr Hayashi's two lectures, he discussed the use of radiological assessment, surgery versus medical treatments, assessments about fracture healing, and the Dos and Don'ts of surgery. In the workshops, he demonstrated plating techniques and the use of intramedullary pins with cerclage wires. During the wet lab sessions, there was ample time for participants to perform their own hands on practice and question Dr Hayashi about specific details.

The continuing education programmes for local veterinarians with over three years' experience are currently the focus of SVM, said **Dr Howard Wong Kai-hay**, Executive Director of SVM's Professional Veterinary Education and Development.

"There are not too many opportunities for local veterinarians to share the latest knowledge about medical treatment, as most veterinary clinics in Hong Kong are small with only one practising veterinarian," Dr Wong said.

"Even for a large clinic, senior veterinarians have little time to share their experience with newcomers due to their heavy workload. More importantly, there are no other local universities offering related training or workshops. It will be difficult for local veterinarians to enhance their techniques even if they want to further their studies or acquire professional qualifications." 香港城市大學(城大)於2014年10月舉行獸醫專業持續進修 課程,透過一系列講座及工作坊,讓40多名獸醫掌握並實踐所 學的最新骨科手術知識。

課程由美國康奈爾大學動物醫學院外科學系副教授林慶博士主 講。他在兩場講座中,與參加者分享如何使用放射性評估、如 何決定使用手術或藥物治療、骨裂癒合評估,以及手術宜忌等 。在工作坊中,他更示範平板技術,以及將骨釘配合鋼絲札環 術等治療方法,參加者透過即場練習及發問,更有效掌握技術 竅門。

動物醫學院專業教育及發展總監<mark>王啟熙獸醫</mark>表示,學院現階段 將主力提供適合畢業三至五年的獸醫的專業持續進修課程。

王獸醫解釋:「香港獸醫業界交流最新治療趨勢的機會不足, 因為本地大部分動物診所都是小型的,只有一名獸醫駐診;即 使是大型的診所,資深獸醫亦因為診症工作繁重,無法跟新入 職的獸醫交流經驗或個案;更重要的是,現時本地大學沒有提 供相關訓練或實習機會。如果獸醫技術基礎不穩,即使有計劃 進修或考取專科資格,也會事倍功半。」

Dr Kei Hayashi graduated from the University of Tokyo with BVMS/DVM/PhD degrees, and then obtained MS and PhD degrees at the University of Wisconsin. He is also a Diplomate of the American College of Veterinary Surgeons.

He has published more than 100 journal articles in areas such as ligament and tendon injury, total joint replacement systems, molecular profiling of osteoarthritis, and the development of medicine. He applies his research results to clinical treatment, including total joint arthroscopy, biological approaches to joint surgery, minimally invasive fracture treatment, and stem cell and regenerative medicine technologies.

林慶博士於日本東京大學取得動物醫學學士及博士 學位,其後再獲美國威斯康辛大學頒發碩士及博士學 位,又取得美國獸醫外科學院專科獸醫資格。他為動 物外科手術權威,曾發表超過100篇論文,主力研究 韌帶及肌腱損傷、全套關節置換系統、關節炎分子表 達譜,以及藥物研發等。他擅長將最新的研究成果應 用於臨床診症上,包括使用內視鏡及生物學方法檢查 關節、微創手術,以及幹細胞或再生藥物治療等。

### Professional Programme on Cytology and Oncology 專業課程 - 細胞學及腫瘤學

Nearly 30 veterinarians learned about the latest practices in cytology and oncology at a two-day continuing education programme at City University of Hong Kong (CityU) in August 2014.

The two-day programme was organized by the School of Veterinary Medicine (SVM) at CityU and the Hong Kong Veterinary Association.

In the seminar, guest speakers Dr Kurt Verkest and veterinary pathologist Dr Neel Aziz, discussed the application and uses of cytology in veterinary oncology. Lectures were given on surgical pathology, use of cytology to evaluate skin tumours and lymph nodes and how to interpret a histopathology report.

In their workshop series titled "Cytology for the general practitioner", the wet lab provided opportunities for participants to evaluate and discuss real life complex cases the guest speakers encountered in their careers.

"There is a strong demand for specialist training in veterinary studies," Said Dr Howard Wong Kai-hay, Executive Director of Professional Veterinary Education and Development in the SVM.

"CityU's SVM will offer professional courses and services to promote local veterinarians professional knowledge and service quality," he added.



香港城市大學(城大)於2014年8月舉辦有關細胞學 及腫瘤學的獸醫專業持續教育課程,共有近30名獸醫參加。

這項課程由城大動物醫學院與香港獸醫學會合辦。課程 為期兩天,由資深執業獸醫 Kurt Verkest獸醫和動物病 理學家Neel Aziz獸醫主持,內容包括介紹手術病理學, 如何利用細胞學評估腫瘤及淋巴結,以及講解研讀病理 學報告的方法。

課程亦以「獸醫細胞學」為主題,安排一系列工作坊, 由主講者分享理想的操作規範,並讓參與者交流真實及 複雜個案。

動物醫學院專業教育及發展總監<mark>王啟熙獸醫</mark>表示,香港 對獸醫專科的持續培訓需求甚殷,動物醫學院將積極提 供專業訓練課程及服務,以增加本地獸醫專業知識及提 升服務質素。





### Veterinary Pathologist@ SVM – Dr Neel Aziz

### 1. Can you give us some background on your professional training and working experience?

After I graduated from Tuskegee University School of Veterinary Medicine, I completed a veterinary anatomical pathology residency at the Armed Forces Institute of Pathology (AFIP) where many renowned human and veterinary pathologists have worked or been trained. I passed my board certifying exam in the same year which allowed me to become a Diplomate of the American College of Veterinary Pathology (ACVP).

Before joining CityU, I have worked at large US government research laboratories and have taught veterinary pathology and worked in a diagnostic laboratory at a veterinary school in Thailand.

#### 2. Why did you choose to work in the SVM of CityU?

Veterinary medicine is a dynamic and ever evolving profession, I believe excellent academic institutions are the driving force to advance any profession.

CityU is a young and innovative university and the SVM here is in collaboration with Cornell University, a top ranked Veterinary School in US, which has the opportunity to increase public understanding of all aspects of the veterinary profession and improve veterinary medicine in East Asia to become on board with the west.

I have confidence that we can establish a world renowned vet school at CityU.

#### 3. What are your responsibilities at SVM?

My responsibility at the SVM is to open up the first full scale veterinary diagnostic disease and research laboratory which is on par with the international standards. This will help veterinarians in Hong Kong become better devoted to the paradigm of "One-Health".

Good diagnostics are the backbone of any hospital or research institute. The diagnostic laboratory will make diagnosis of a wide range of infectious and non-infectious diseases, from cancer to endocrine disease. We will support a wide range of animal species to include the common companion animals (e.g. dogs and cats), exotic/pets (e.g. birds, reptiles and ornamental fish,), food-animals (e.g. chicken, pigs, cows, and fish) and laboratory animals (e.g. mice, rats, and rabbits).

### 4. Why is your expertise important in veterinary medicine?

Veterinary pathology is the science that studies disease in animals.

Veterinary pathologists improve and protect human and animal health by diagnosing disease in companion, zoo, lab and food animals, and wildlife. With experience in diseases of multiple species, veterinary pathologists are uniquely qualified to perform studies to advance our understanding of the cause and methods to prevent disease in animals and humans. Veterinary pathologists are often among the first to recognize a new disease or health hazard, such as West Nile Virus which had invaded North America; and we play critical roles in research teams to alleviate AIDS, SARS, chronic wasting disease, and monkeypox.

Veterinary pathologists help maintain herd health and establish if there is a risk to humans handling or consuming the meat or milk of these animals

#### 5. What do you plan to achieve in SVM?

In regards to milestones after the lab is completed, I have a three-part plan.

First, I will start a veterinary oncology working group in Hong Kong, to study and track the diagnosis and treatment of different kinds of animal cancers seen in Hong Kong. In the realm of comparative pathology, we will then have an opportunity to see if there is any relation to cancers seen in humans.

Second, is to assist in the training of food inspectors, health inspectors, and veterinary nurses to grossly identify disease in food animals, processed and companion animals that pose a zoonotic risk. Example of zoonotic disease we should be concerned with in East Asia include scabies, echinococcosis, avian chlamydiosis, and leptospirosis.

Third, is to link the existing local veterinary laboratories together to form a veterinary lab network with an aim at advancing diagnostic methods and research into animal diseases.

### 6. Can you share with us any memorable stories about your working?

East Asia is a fascinating place when it comes to the different animal species seen here and animal pathogens (the organism that cause infectious disease). Living in Thailand these past few years, I was able to commonly work with animal species I had only seen in TV programs or zoos, such as elephants, crocodiles.

Small ruminants such as sheep and goats are underserved population of food animal in Southeast Asia with limited research. In addition, farmers are lack of financial support and veterinary medicine knowledge to curb diseases. I once conducted a disease investigation on a remote farm in rural western Thailand which was experiencing a weekly significant loss of adult animals.

It was a challenging diagnosis at first as I were not able to get the bacteriology samples to our university's lab or a state lab in time. Relying on histopathology only we were able to make the diagnosis and took this farm on as a disease research project. I helped the farm implement several steps to improve the husbandry and prevent the recurrence of diseases.

### 動物病理學家Neel Aziz獸醫@動物醫學院

#### 1. 請介紹你的專業訓練及工作經驗?

在美國塔斯基吉大學動物醫學院畢業後,我在著名的美軍病理學 研究所完成動物解剖病理學實習,並成功通過考核,成為美國動 物病理學院認可的專科醫生。

加入城大之前,我曾在幾所美國政府大型實驗室工作,又在泰國一動物醫學院病理實驗室工作,以及教授動物病理學。

#### 2. 為何選擇在城大動物醫學院工作?

我認為,動物醫學是一門互動及發展中的專業,而且一所卓越的 院校是促進專業發展的重要力量。 城大是一所年青及勇於創新的大學,而且城大動物醫學院與在美 國動物醫學排名第一的康奈爾大學合作,不單讓公眾有機會對動 物醫學各大領域增加認識,而且可以提升東亞地區的動物醫學水

平,與國際接軌。 我有信心,我們可以在城大創建一所國際知名的動物醫學院。

#### 3. 你在動物醫學院的工作是甚麼?

我負責開設第一所全面及達到國際水平的動物病理診斷及研究實驗室,期望可以協助本地獸醫更好地掌握「同一健康」的做法。 良好的診斷是任何醫院及研究機構不可或缺的部分,實驗室將會分析一系列動物傳染或非傳染疾病,包括癌症、內分泌疾病等, 亦會對多種動物種類作支援,例如貓狗等夥伴動物;雞、豬、魚 等食品動物,以及老鼠、兔仔等實驗室動物。

#### 4. 你的專業知識對動物醫學有何重要性?

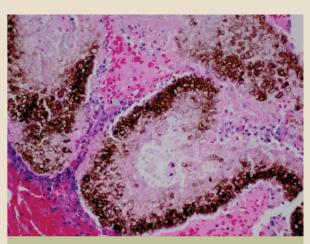
動物病理學是專門研究動物疾病的科學

現時疾病多跨種類,動物病理學家在一個獨特的位置,增加人們 對疾病的起因,以及預防方法等認識,以防止疾病傳播,並改善 人類及動物的健康。

動物病理學家經常是第一批發現新疾病或疾病危機的人員,例如 入侵北美的西尼羅河病毒;而且亦在緩解愛滋、沙士及猴痘等疫 情擔當重要角色。他們亦協助保持畜物場的水平,避免人類處理 或食用肉類、牛奶等食品時出現危機。



Dr Neel Aziz Neel Aziz獸醫



Photomicrograph of subcutaneous infection of Phaeohyphomycosis (Canine) 狗隻皮膚暗色絲孢黴病皮下感染的顯微照片

#### 5. 你在動物醫學院有甚麼工作計劃?

當實驗室成立後,我的計劃主要分成三部分。 首先,我會在香港成立一個動物腫瘤學的工作小組去研究及追蹤 各項動物癌症的診斷及治療。透過病理比較,我們將會有一個更 好的機會去研究人類與動物癌症的關係。

第二,我會協助訓練食物督察、健康督察或獸醫護士等,以識別 有機會帶來危機的動物疾病,例如疥瘡、胞蟲病、禽鳥類披衣菌 症及細螺旋體病等在東亞普遍的動物病症。第三,我希望組織本 地的動物實驗室網絡,促進動物疾病的診斷及研究發展。

#### 6. 請分享一些難忘的工作經歷?

東亞是一個奇妙的地方,可以發現不同的動物及病原體;我在泰國生活的幾年間,經常遇到以為只會在電視節目或動物園看到的動物,如鱷魚、大象等。

在東南亞,綿羊、山羊等小型反芻類、食用動物一直備受忽視, 相關研究不足,加上農民欠缺經濟能力及知識,面對疫症時,自 然束手無策。我曾經到一個位於泰國西部的偏遠農場,那裏每星 期都有大量畜物死亡,但因無法將生物樣本在既定時間內送回大 學或國家實驗室化驗,故診斷充滿挑戰性,其後我透過組織病理 學終成功發現致病源,並將農場發展成為研究點,透過一系列方 法改善農場環境,避免那裏再出現疫症。



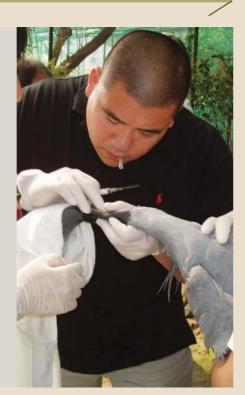


#### WHO WE ARE in the School of Veterinary Medicine 動物醫學院團隊

#### Dr Howard Wong Kai-hay, 王啟熙獸醫 Executive Director (Professional Veterinary Education and Development) Director of the Centre for Animal Welfare 專業教育及發展總監 及 動物福利中心總監

Dr. Wong graduated from the University of Cambridge with degrees in Biological Anthropology and Veterinary Medicine. He went on to complete a Master's degree in Preventive Veterinary Medicine from the University of California at Davis. Dr. Wong worked in the Hong Kong Government (several departments and bureaus) for 17 years and in 2011, was appointed the first ever Principal Veterinary Officer in the Government. Since joining CityU in 2012, he has been responsible for planning and development of the school of veterinary medicine programme, including the veterinary curriculum, the veterinary diagnostic service, a companion animal hospital, continuing professional education and development of a Centre for Animal Welfare.

王獸醫在劍橋大學取得生物人類學及動物醫學學士學位,其後在美國加州 大學戴維斯分校取得預防動物醫學碩士學位。他曾在多個政府部門任職。 有豐富的管理經驗,並於2011年獲晋升為香港政府紀錄上第一位首席獸 醫。在城大,王獸醫負責動物醫院籌劃及推行一系列項目,包括診斷服務 、動物醫院等。





#### Dr Richard Brown, 彭偉澤獸醫 Associate Director, 副總監

Dr Brown qualified from The University of Cambridge University with a degree in Veterinary medicine and Land Economics and gained a MSc in Tropical Veterinary Medicine East at the Royal (Dick) School of Veterinary Studies of the University of Edinburgh. He had served as a veterinarian in various governments, research institutes and farms in various countries such as the HK, UK and Central America. Throughout his career, he has maintained an interest in research. Published papers have covered subjects such as, practice economics, an indirect immunofluorescent test for canine distemper, and vitamin A levels in cattle.

彭獸醫在英國劍橋大學取得動物醫學及土地經濟學士學位,其後在愛丁堡大 學皇家(迪克)動物醫學院完成熱帶動物醫學理學碩士學位。他曾在英國、 中美等不同國家及地區的政府、研究機構及農場擔任獸醫;並一直保持對研 究的興趣,曾就不同項目發表文章包括實務經濟學、有關犬類失控的非直接 螢光免疫檢驗法,牛類維他命A水平等。

#### Dr Beatrice Lee Yin-ling, 李燕玲博士 Associate Director, 副總監(特別項目)

Dr Lee obtained her bachelor degree and master's degree at The University of Hong Kong and CityU respectively. She graduated as a Doctor of Education with the University of Leicester. Before joining the SVM, she served various programme validation panels and was involved in setting up the new School of Law and the School of Creative Media. From 2002 to early 2013, she supported the University Council in setting the mission and the strategic direction of CityU.

李博士在香港大學及城大分別取得學士及碩士學位;並獲英國萊斯特大學頒發教育 博士學位。加入動物醫學院前,李博士曾在城大不同課程認證委員會工作,又參與 新學院,即法律學院及創意媒體學院籌建。由2002至2013年,她協助校董會制定 大學願景及策略發展方向。



#### Dr Ng Lip Tet 吳立德獸醫 Visiting Fellow, 客座研究員

Dr Ng graduated from Massey University, New Zealand and received his Canadian Veterinary Medical Association accreditation and American Veterinary Medical Association's Educational Commission for Foreign Veterinary Graduates certification. In 2001, Dr Ng started his veterinary career in the Hong Kong Civil Service, he was responsible for certification of export food items, import control of live food animals and animal products for human consumption, working on biosecurity projects for horses participating in involving the 2008 Olympic Games Equestrian Events held in Hong Kong, and other various projects such as animal welfare, veterinary student attachments, and training programmes for veterinary officers.

吳獸醫於新西蘭梅西大學取得動物醫學學士學位;並先後獲加拿大動物醫學學會 及美國動物醫學學會外國獸醫畢業生教育委員會認證。他於2001年加入香港政 府,曾經負責出口食物認可,食用動物或相關食品的入口認可;又負責2008年 香港主辦奧運馬術項目的生物安全項目,還有動物福利、動物醫學學生實習及獸 醫培訓等其他項目。



#### Dr Queeny Yuen Wing-han, 阮穎嫺博士 Visiting Fellow, 客座研究員

Dr Yuen attained her Bachelor of Science specialising in animal science from Nottingham University, UK and received a PhD from the Hong Kong Polytechnic University(HKPU). She is a Fellow of the Higher Education Academy of the Royal Veterinary College (RVC). She had worked as a veterinary technician and then assumed a conservation position at Ocean Park where she developed interests for research. In 2009, she joined the Society for the Prevention of Cruelty to Animals where she oversaw the welfare operations. Before joining CityU, Dr Yuen was a key member in the running of Hong Kong's first BSc(Hons) in Veterinary Nursing programme at HKPU.

阮博士在英國諾丁漢大學取得理學學士學位主修動物科學,其後於香港理工大學取得 博士學位,及獲英國獸醫學院高等教育學院院士銜。她曾在香港海洋公園擔任獸醫技 術員及參與保育工作,並培養出研究興趣。她於2009年加入愛護動物協會負責動物 福利事宜。加入城大之前,阮博士在理大開辦全港首個動物護理學學士課程中,擔任 重要角色。

#### Mr Mo Kai-hong, 巫啟康先生 Facilities Manager, 物業及設施經理

Mr. MO received his MBA from the University of Hull and an LLB from Tsinghua University. Prior to joining CityU, he was a Senior Field Officer in the Agriculture, Fisheries and Conservation Department where he oversaw livestock farm regulation, avian flu preparation programmes and contingency plans for avian influenza outbreaks. During his services in the HKSAR Government, he awarded many Commendations / Letters of Appreciations.

In SVM, he is responsible for planning, development and maintenance of facilities and also assists in preparing continuing professional development courses for veterinarians.

巫先生在赫爾大學取得工商管理碩士學位,又在清華大學取得法律學士學 位。加入城大之前,他在漁農自然護理署擔任高級農林督察,負責規管禽畜 農場,以及當禽流感爆發時,統籌有關準備及所有緊急應變計劃;在香港特 區政府服務的期間,他曾獲得多封表揚信。在動物醫學院中,他負責規劃、 發展及維持院內的設施,又協助所有獸醫持續進修課程的推行。





## CONTACT INFORMATION



School of Veterinary Medicine, City University of Hong Kong Tat Chee Avenue, Kowloon, Hong Kong

香港城市大學 動物醫學院 香港九龍達之路

Website 網址 : http://www6.cityu.edu.hk/svm/en/index.html Email 電郵 : cityusvm@cityu.edu.hk Telephone 電話: +(852) 3442 6138