

DATE: February/2025

## CURRICULUM VITAE

### Candice P. Chu, DVM, PhD, DACVP (Clinical Pathology)

#### CONTACT INFO:

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#### POSITIONS and EMPLOYMENT:

- June 2024- Tenure-Track Assistant Professor, Department of Veterinary Pathobiology  
Texas A&M University, College of Veterinary Medicine and Biomedical Sciences
- 2021-2023 Assistant Professor of Clinical Pathology, Department of Pathobiology  
University of Pennsylvania, School of Veterinary Medicine

#### EDUCATION:

- 2018 Doctor of Philosophy, Veterinary Pathobiology; Texas A&M University  
2013 Doctor of Veterinary Medicine; National Taiwan University

#### POSTDOCTORAL TRAINING and FELLOWSHIP APPOINTMENTS:

- 2018-2021 Residency in Veterinary Clinical Pathology; Texas A&M University

#### SPECIALTY CERTIFICATION:

- 2021 Diplomate, American College of Veterinary Pathologists (Clinical Pathology)

#### RESEARCH INTERESTS:

Pathogenesis and novel biomarker discovery in chronic kidney disease; Computational biology; RNA sequencing data analysis; Artificial intelligence in Veterinary Medicine; digital cytology; Meta-analysis

#### LICENSURE and CERTIFICATES:

- 2024 MIT Professional Education: Applied Data Science Program: Leveraging AI for Effective Decision-Making
- 2024 Compass: NIH-funded training and mentoring program for early-career biomedical researchers, Washington University School of Medicine
- 2022 Penn Faculty Pathways Program, University of Pennsylvania
- 2021 QPR Suicide Prevention Gatekeeper Program, Texas A&M University
- 2020-2021 Texas Special License (#S-576)
- 2020 Certificate for Diversity & Inclusion in Veterinary Medicine, Purdue University
- 2016 Certificate of Achievement in Hemodialysis Academy, UC Davis
- 2016 CVM Inclusive Climate Aggie Ally, Texas A&M University
- 2015 North American Veterinary Licensing Examination (NAVLE)
- 2013 Taiwan Veterinary License (#7309)

## **NATIONAL COMMITTEES AND ACTIVITIES:**

2024-Present	Member, ACVP Web Redesign Working Group
2024-Present	Member, AVMA Task Force on Emerging Technologies and Innovation
2022-2024	Member, ACVP Training Program Accreditation Committee
2022-Present	Member, ASVCP Education Committee
2021-Present	Member and Forum Co-chair, ACVP Pathology Informatics Committee
2019-2023	Member and Chair-Elect, ASVCP Media and Communication Committee

## **AD HOC/INVITED REVIEWS:**

2025-Present	Journal of Veterinary Internal Medicine (1 manuscript)
2024-Present	The Veterinary Journal (1 manuscript)
2023-Present	Journal of Feline Medicine and Surgery (1 manuscript)
2023-Present	Morris Animal Foundation Scientific Advisory Board
2022-Present	AKC-CHF grant review (3 proposals)
2022-Present	MDPI Animals (1 manuscript), BMC Veterinary Research (1 manuscript)
2018-Present	Veterinary Clinical Pathology (8 manuscripts)

## **PROFESSIONAL ASSOCIATIONS:**

2024-Present	Member, Association of Veterinary Informatics
2023-Present	Member, American Society of Cytopathology
2021-Present	Member, Digital Pathology Association
2020-Present	Member, Clinical and Translational Science Award One Health Alliance
2020-Present	Member, American College of Veterinary Pathologists
2020-Present	Member, American Society of Veterinary Nephrology and Urology
2019-Present	Member, International Society for Animal Clinical Pathology
2016-Present	Member, American Society for Veterinary Clinical Pathology

## **AWARDS, HONORS and MEMBERSHIP in HONORARY SOCIETIES:**

### **Assistant Professor of Clinical Pathology at University of Pennsylvania**

2022 McCabe Award, Perelman School of Medicine, UPenn

### **Veterinary Clinical Pathology Resident at Texas A&M University (TAMU)**

2021	Phi Zeta Veterinary Professional Honor Society (ETA CHAPTER)
2021	Davis-Thompson Foundation Pathology Trainee and Scholarship Awards
2020	ASVCP Share the Future Presentation Award
2020	ACVP Harold W. Casey Scholarship Award ( <u>Given to one pathology resident per year</u> )
2019	ASVCP Young Investigator Award - Basic Research
2019	ASVCP Resident Externship Training in Industry Scholarship
2019	American Society of Nephrology Kidney STARS (First DVM awardee)
2019	TAMU CVM Postdoctoral Association Travel Award
2019	TAMU Graduate Student Platform Presentation (Second Place)

### **PhD Student at TAMU**

2018	TAMU High Impact Achievement Award (First Author Award)
2018	TAMU Graduate Student Poster Presentation (Third Place)
2018	TAMU Graduate Student Platform Presentation (People's Choice Award)
2017	ACVP Young Investigator Award - Natural Disease (First Place)
2017	ASVCP Young Investigator Award - Basic Research

2017	ACVP Resident/Graduate Student Travel Award
2017	ASVCP Share the Future Travel Award
2017	TAMU Graduate Student 3-Minute Flash Talks (First Place and People's Choice Award)
2017	TAMU High Impact Achievement Award (Small Grant Recipient)
2016	American College of Veterinary Pathologists (ACVP) Young Investigator Award - Natural Disease (First Place)
2016	Government Scholarship to Study Abroad, Ministry of Education, Taiwan
2016	TAMU College of Veterinary Medicine (CVM) Graduate Student Association Travel Award
2016	North America Taiwanese Engineering & Science Association Scholarship, USA
2014	TAMU Lechner Scholarship

#### **Veterinary Student at National Taiwan University (NTU)**

2013	Animal Medical Research Foundation Scholarship, Taiwan
2013	Young Collage Elite, China Youth Corps, Taiwan
2012	Taipei Veterinary Medical Association Scholarship, Taiwan
2012	NTU School of Veterinary Medicine Alumni Association Scholarship
2012	NTU President Award (Top 5% of the class)
2012	NTU Outstanding College Youth Award (Top 15 students among 32,693 students)
2010	International Youth Ambassadors Exchange Program at Eswatini, South Africa (formerly known as Swaziland), Ministry of Foreign Affairs, Taiwan

## PUBLICATIONS

### Peer-Reviewed Papers:

1. **Chu C**, Ko MC, Tu E, Marciano K. Artificial Intelligence-Assisted Cytologic Diagnosis of Intermediate to Large B-Cell Lymphoma in Dogs: A Pilot Study. *Vet Clin Pathol.* (In revision)
2. **Chu C**, Nabity Mary. Urinary MicroRNA as Biomarkers for Chronic Kidney Disease in Dogs and Cats: Updates and Challenges. *Vet Clin Pathol.* 2025
3. **Chu C**. ChatGPT in Veterinary Medicine: A Practical Guidance of Generative Artificial Intelligence in Clinics, Education, and Research. *Front vet sci.* 2024;11:1395934.
4. Cherry AD\*, **Chu C\***, Cianciolo RE, Hokamp JA, Jacobson S, Nabity MB. MicroRNA-126 in dogs with immune complex-mediated glomerulonephritis. *J Vet Intern Med.* 2024; 38(1): 216-227 \*Co-first authors (listed based on alphabetical order)
5. Wong, AC, Devason A, Umana IC, Cox TO, Dohnalová L, Litichevskiy L, Perla J, Lundgren P, Etwebi Z, Izzo L, Kim J, Monika T, Wisser S, McKnight AD, Pardy RD, Descamps HC, Blank N, Patel S, Thum K, Miller B, Liou M, Madhu B, Dmitrieva-Posocco O, Hewins P, **Chu C**, Baraniecki-Zwil G, Giron LB, Baxter AE, Greenplate AR, Kearns C, Montone K, Litzky LA, Feldman M, Striepen B, Ramage H, Jurado KA, Wellen KE, O'Doherty U, Abdel-Mohsen M, Landay AL, Keshavarzian A, Henrich TJ, Deeks SG, Peluso MJ, Heath JR, Wherry J, Meyer NJ, Abramoff B, Cherrys S, Thaiss CA, Levy M. Serotonin reduction in post-acute sequelae of viral infection. *Cell.* 2023 Oct 26;186(22):4851-4867.e20.
6. **Chu C**, Nabity MB, Porter BF, Aceino A. What is your diagnosis? Large perianal mass in a dog. *Vet Clin Pathol.* 2023 May 30, 00: 1- 4.
7. **Chu C**, Liu S, Song W, Nabity MB. Small RNA sequencing evaluation of renal microRNA biomarkers in dogs with X-linked hereditary nephropathy. *Sci Rep.* 2021 August 31, 11:17437.
8. **Chu, C**, Nabity MB. Comparison of RNA isolation and library preparation methods for small RNA sequencing in canine biofluids. *Vet Clin Pathol* 48(2):310-319, June 2019.
9. **Chu C**, Hokamp JA, Cianciolo RE, Dabney A, Brinkmeyer-Langford C, Lees GE, Nabity MB. RNA-Seq of serial kidney biopsies obtained during progression of chronic kidney disease from dogs with X-linked hereditary nephropathy, *Sci Rep.* 2017 Dec 1;7(1):16776.
10. Brinkmeyer-Langford C, **Chu C**, Balog C, Nabity M, Kornegay JN. Expression profiling of disease progression in canine model of Duchenne muscular dystrophy. *PLoS One.* 2018 Mar 19;13(3):e0194485.

### Continuing Education Articles:

1. **Chu C**. Banish the PDF-hunting blues with these AI and digital tools. *Nature Career Column*, 2024 Dec
2. **Chu C**. Round Cell Tumor Cytology in Dogs. *Veterinary Focus*, 2024 April
3. **Chu C**. Top 3 Conditions Missed by Skipping a Urinalysis. *Clin Brief*, 2023 Sep

### Published Abstracts:

1. **Chu C.**, Ko MC, Tu E. "Artificial Intelligence-Assisted Cytologic Diagnosis of Canine Large B-Cell Lymphoma" ACVP conference (November 15, 2022)
2. **Chu C.**, Osorio D., Nabity M. "Renal Single-cell RNA Sequencing in Dogs with a Naturally Occurring Progressive Chronic Kidney Disease" 2022 American College of Veterinary Internal Medicine (ACVIM) Forum (June 23, 2022)

## RESEARCH GRANTS

**Ongoing Grant Activity (\$121,288):**

Name of Grant & sponsor number	Funding Agency	Period of Grant	Type of Grant	Role in Grant and percent effort	Annual Direct Cost	Annual Indirect Cost	Additional Comments
AKC Canine Health Foundation/Zoetis	AKC Canine Health Foundation	2 years	PG	Co-Investigator	\$101,656	\$8,132	N/A
CAP-K-Grant	EveryCat Health Foundation	2 years	PG	PI; 16.66%	\$11,500	N/A	N/A

**Past Grant Activity (\$93,977):**

Name of Grant & sponsor number	Funding Agency	Period of Grant	Type of Grant	Role in Grant and percent effort	Annual Direct Cost	Annual Indirect Cost	Additional Comments
Program in Comparative Animal Biology (PICAB) Pilot Grants in Mechanisms of Pathology in Animals Models of Human Diseases	UPenn	2 years	PG	PI; 15%	\$30,000	N/A	N/A
Companion Animal Research Fund (CARF)	UPenn	2 years	PG	PI; 16.66%	\$31,477	N/A	N/A
McCabe Fund Award	UPenn	1 year	PG	PI; 16.66%	\$20,000	N/A	N/A
Graduate Student Core Facility Experimental Learning Program Grant	TAMU CVM	1 year	TG	PI; 100%	\$2,500	N/A	N/A
Postdoctoral Research Trainee Grant	TAMU CVM	1 year	TG	PI; 100%	\$10,000	N/A	N/A

## PRESENTATIONS

### CONFERENCE ABSTRACT PRESENTATION:

#### American College of Veterinary Pathologists (ACVP) Annual Meeting

1. **Chu C.** "VetClinPathGPT: Exploring the Potential of Generative Artificial Intelligence in Veterinary Education" ACVP conference (November 17, 2024)
2. **Chu C.**, Piviani M., Duxbury S., Salah P. "ASVCP Mystery Slide Case 13." ACVP conference (November 15, 2022)
3. **Chu C.**, Ko M-C, Tu E. "Artificial Intelligence-Assisted Cytologic Diagnosis of Canine Large B-Cell Lymphoma." ACVP conference (November 15, 2022)
4. **Chu C.**, Nabity M.B., Porter B.F., Aceino A. "What is your diagnosis? Large perianal mass in a dog." ACVP conference (Oral - November 1, 2020)
5. **Chu C.**, Cianciolo R., Hokamp J., Lees G.E., Nabity M. "Urinary MicroRNA Profiling in Dogs with Chronic Kidney Disease Caused by Glomerular Diseases." ACVP conference (Oral - November 10, 2019)
6. **Chu C.** and Nabity M. "Comparison of Methods for Preparation of Biofluids in Dogs for Small RNA Sequencing." ACVP conference (Oral - November 5, 2017)
7. **Chu C.**, Osorio D., Nabity M. "Single-cell RNA Sequencing of Canine Kidney Enables Estimation of Cell Type Abundance From Bulk Tissue Transcriptome in Digital Cytometry" ACVP conference (Poster - October 30, 2020)
8. **Chu C.** and Nabity M. "Small RNA-seq evaluation of microRNAs during disease progression in kidney biopsies from dogs with X-linked hereditary nephropathy." ACVP conference (Poster - November 5, 2017)
9. **Chu C.**, Hokamp J., Dabney A., Aguilar M., Nabity M. "RNA-seq of Serial Kidney Biopsies Obtained During Progression of Chronic Kidney Disease from Dogs With X-linked Hereditary Nephropathy." ACVP conference (Poster – December 4, 2016)

#### American College of Veterinary Internal Medicine (ACVIM) Annual Meeting

10. **Chu C.**, Osorio D., Nabity M. "Renal Single-cell RNA Sequencing in Dogs with a Naturally Occurring Progressive Chronic Kidney Disease" ACVIM Forum (June 23, 2022)
11. Cherry A., **Chu C.**, Cianciolo R., Hokamp J., Jacobson S., Nabity M. "Urinary miRNA 126 is Elevated in Dogs with Immune Complex-Mediated Glomerulonephritis" ACVIM Forum (June 23, 2022)

#### American Society of Nephrology (ASN) Kidney Week

12. **Chu C.**, Cianciolo R., Hokamp J., Lees G.E., Nabity M. "Biofluid MicroRNA Expression Patterns in Three Types of Naturally-Occurring Canine Models for Glomerular Disease." American Society of Nephrology Kidney Week (Poster - November 9, 2019)

#### Society of Toxicologic Pathology (STP) Annual Symposium

13. Smith M., Wilcox A., Schwartz J., O'Neill T., Crouch E., Rudmann D., Westerling T., Smith L., **Chu C.** "Screening for bone marrow cellularity changes in toxicology safety studies using AI models" 2022 Society of Toxicologic Pathology Annual Symposium (Oral - June 20, 2022)

#### European Society of Veterinary Pathologists (ESVCP) Annual Meeting

14. Dulli R., Jennings A., **Chu C.**, Russell K., Chaffin K. "ESVCP Mystery Slide" 2021 ESCVP conference (Oral - October 16, 2021)

#### Talbot Veterinary Informatics Symposium

15. **Chu C.** "The Future of Veterinary Research: Navigating Literature and Writing with AI and Digital Tools." Talbot Veterinary Informatics Symposium (Oral – September, 2024)

## **CL Davis Annual South-Central Division Meeting**

16. **Chu C.**, Vail K., Bacon R., Dunneho C. "Erythrocyte Abnormalities in A Reindeer" CL Davis Annual South-Central Division Meeting (Oral - October 2, 2020)
17. **Chu C.**, Hernandez A., Giaretta P., Porter B. "Leukocytosis in A Labrador Retriever." CL Davis Annual South-Central Division Meeting (Oral - October 5, 2018)

## **KEYNOTE PRESENTATION:**

- 2024           **ChatGPT in Veterinary Medicine.** American College of Veterinary Radiology (ACVR) Scientific Conference. Norfolk, VA, USA.

## **SCIENTIFIC PRESENTATIONS BY INVITATION:**

- 2025 (invited)   **The impact of AI on veterinary diagnostics and consulting.** Purina Institute Global Summit. St. Louis, MU, USA
- 2024           **Generative AI in Veterinary Education.** 7th Annual VMBS Teaching Showcase. TAMU, TX, USA.
- 2024           **The Application of Artificial Intelligence in Veterinary Pathology.** American College of Veterinary Pathologists (ACVP) Lifelong Learning Webinar.
- 2024           **From Feed to Finish: AI and Digital Tools for Streamlining Academic Writing.** American College of Veterinary Pathologists (ACVP) Annual Forum. Seattle, WA, USA.
- 2024           **Next Gen Veterinary Researcher: How I streamline academic writing with AI and digital tools.** Research Conversation. TAMU, TX, USA.
- 2024           **AI PANEL: Challenges and Insights of the Biotech Industry in the AI Era.** Texas Taiwanese Biotechnology Association (TTBA) Symposium. Houston, TX, USA
- 2024           **Next Gen Veterinary Researcher: How I streamline academic writing with AI and digital tools.** American College of Veterinary Internal Medicine (ACVIM) Annual Meeting, ASVCP Specialty Sessions. Minneapolis, MN, USA.
- 2024           **Revolutionizing Veterinary Medicine with ChatGPT: A New Frontier in Artificial Intelligence Applications.** American College of Veterinary Internal Medicine (ACVIM) Annual Meeting, ASVCP Specialty Sessions. Minneapolis, MN, USA.
- 2024           **AI Tools in Research,** Taiwanese Biomedical Professional Society Monthly Seminar. UPenn, Philadelphia, PA, USA.
- 2023           **AI PANEL: AI in Medicine.** Taiwanese American Association of Biotechnology (TAAB) Annual Symposium. Philadelphia, PA, USA.
- 2023           **Urinary MicroRNAs as Biomarkers in Canine and Feline Chronic Kidney Disease.** American College of Veterinary Internal Medicine (ACVIM) Annual Meeting, ASVCP Specialty Sessions. Philadelphia, PA, USA.
- 2023           **Mystery bone marrow case.** Clinical Pathology Seminar. Texas A&M University, USA
- 2022           **Urinary MicroRNAs as Biomarkers for Chronic Kidney Disease in Dogs and Cats.** Special Seminar. Institute of Molecular and Comparative Pathobiology, National Taiwan University, Taipei City, Taiwan.
- 2022           **Urinary extracellular vesicles in feline chronic kidney disease.** Advanced Urinary Care Rounds. Penn Vet, PA, USA.
- 2022           **Scientific advisory board on chronic kidney disease.** Boehringer Ingelheim ACVIM Pre-congress Meeting, Austin, TX, USA.
- 2022           **Mystery bone marrow case.** Clinical Pathology Seminar. Texas A&M University, TX, USA.
- 2022           **MicroRNAs: Biomarkers in Canine chronic kidney disease.** Advanced Urinary Care Rounds. Penn Vet, Philadelphia, PA, USA.

## **CONTINUING EDUCATION PRESENTATIONS BY INVITATION:**

2025	<b>Blood Morphology Matters: Common Clinically Significant Findings You Might Miss If You Don't Smear (IDEXX sponsored).</b> VMX Veterinary Conference. Orlando, FL, USA
2025	<b>AI and medicine: where are we now? where are we heading? Should we embrace or be afraid? (IDEXX sponsored).</b> VMX Veterinary Conference. Orlando, FL, USA
2025	<b>The 'art' of interpreting blood morphology (IDEXX sponsored).</b> VMX Veterinary Conference. Orlando, FL, USA
2024	<b>Blood Morphology Matters: Common Clinically Significant Findings You Might Miss If You Don't Smear.</b> American Veterinary Medical Association (AVMA) Convention. Austin, TX, USA.
2024	<b>All You Need to Know About Round Cell Tumor Cytology.</b> VETgirl. Webinar.
2024	<b>Top 3 Conditions Missed by Skipping Urinalysis (with Dr. Alyssa Watson).</b> Clinician's Brief. Podcast.
2024	<b>Cytology Trivia.</b> Small Animal Oncology. National Taiwan University, Taiwan.
2024	<b>Round Cell Tumor Cytology.</b> Hill's Pet Nutrition. Webinar.
2023	<b>Cytology Lecture Series (4 hours).</b> The 38th World Veterinary Association Congress. Taipei, Taiwan.
2022	<b>Cytologic Diagnosis of Urinary Tract Diseases in Small Animals.</b> Chinese Society of Comparative Pathology Annual Meeting. Webinar.
2020	<b>Skin Cytology Webinar Series.</b> Vetderm.eu. Webinar.
2019	<b>Interpretation of ProCyte Dx dot plots and the basic concepts of flow cytometry and PARR.</b> Special Seminar. National Taiwan University, Taiwan.
2019	<b>Veterinary Clinical Pathology (4 hours).</b> Special Seminar. National Chung-Hsing University, Taiwan.

#### ORAL PRESENTATION IN OUTREACH ACTIVITIES:

2024	<b>Coffee Chat.</b> Texas Taiwanese Biotechnology Association (TTBA). TAMU, TX, USA
2024	<b>How to Apply for Veterinary Graduate Schools in United States.</b> Taiwan Veterinary Medicine Student Association (TVMSA). Webinar.
2023	<b>Opportunities Beyond Cytology: The Thousand Faces of Veterinary Clinical Pathologists.</b> International Veterinary Students Association (IVSA) Pathology Network. Webinar.
2023	<b>So, you want to be a vet?</b> National Experimental High School, Taiwan.
2023	<b>A Conversation in Veterinary Pathology (with Drs. Caralyn Labriola and Hannah Atkins).</b> The A.C.V.P. Podcast.
2022	<b>Setting up a science blog.</b> CVMBS-PDA monthly meeting. Webinar.
2022	<b>Becoming a pet owner: Understand their medical needs.</b> Taiwanese Biomedical Professional Society Monthly Seminar. UPenn, Philadelphia, PA, USA.
2021	<b>How to Land on Faculty Position.</b> TTBA. Webinar.
2021	<b>How to apply for faculty positions in the US.</b> NTU Alumni Career Column.
2021	<b>High School Students Career Workshop.</b> Taiwan Veterinary Medicine Students' Association (TVMSA). Webinar.
2020	<b>I AM CVM.</b> CVM, TAMU, TX, USA.
2020	<b>Job Hunting Tips: Building Your Online Portfolio.</b> Texas Taiwanese Biotechnology Association (TTBA). Webinar.
2020	<b>My pathway to board-certified clinical pathologist in the US.</b> NTU Alumni Career Column.
2019	<b>Veterinary Education in the United States and Taiwan - Differences and Prospects.</b> North America Taiwanese Professors' Association (NATPA), Houston, TX, USA

2018	<b>Veterinary Training System in the US.</b> Taiwanese Young Researcher Association (TYRA). Webinar.
2016	<b>How to apply for US graduate schools.</b> National Taiwan University & National Chung-Hsing University, Taiwan

#### SPEAKER EVALUATION/THANK YOU LETTERS:

Year	Presentation titles / Thank you letters
2025	<p><b>Blood Morphology Matters: Common Clinically Significant Findings You Might Miss If You Don't Smear, AI and medicine: where are we now? where are we heading? Should we embrace or be afraid?, and The 'art' of interpreting blood morphology.</b> VMX Veterinary Conference. Orlando, FL, USA</p> <p>Great idea for us to be more interactive by painting our own picture of the different blood cells, even if I'm not a very good artist. I really enjoyed this session and will try this again if it is offered again at a conference. Thank you again for your session.</p> <p>Articulate, passionate, enjoys teaching</p> <p>Have been following your social media ever since vet school as I am TAMU CVM class of 2022. So cool to see you present!!</p>
2024	<p><b>Generative AI in Veterinary Education.</b> 7th Annual VMBS Teaching Showcase. TAMU, TX, USA.</p> <ul style="list-style-type: none"> <li>– They were all 3 very informative. I know nothing about AI and their presentations provided me with a great deal of new information.</li> <li>– The sessions were great. I wish this was a two day session with break out rooms so that we could "play" with some of the programs, with the guidance of the expert speakers.</li> <li>– Incredible presentations which really helped show how we can us AI</li> <li>– Each of these talks was informative and interesting. Together they presented a synergistic blend of topics and examples of ways to use AI in teaching.</li> <li>– Everyone was very helpful and presented the material in an engaging way.</li> <li>– All were excellent and provided knowledge, insight but most of all direct experiences with AI and the utility for improving our own use. For sure, my teaching will be improved by the knowledge I was able to accumulate, that will expand my own limited use with AI. great topic and presentations all round</li> <li>– I attended only the presentation by Candice Chu. (A schedule conflict prevented me from attending the other two presentations.) The presentation was both informative and well-crafted. Well done!</li> <li>– Informative</li> <li>– Interesting presentations about AI that I needed to learn.</li> <li>– Great collection of speakers with different perspectives and experience on the main topic.</li> <li>– All of these presentations were excellent</li> <li>– Good info about this emerging technology and its clinical applications. I think I also wanted to learn more about how students are using this technology and how it might apply to current clinical practice.</li> </ul>

	I was just getting ready to reach out to you! We so appreciate your contribution, and you gave a clear, engaging and focused presentation. (PS I love that you had slides at the ready for the questions from the audience!)
2024	<p><b>The Application of Artificial Intelligence in Veterinary Pathology.</b> American College of Veterinary Pathologists (ACVP) Lifelong Learning Webinar.</p> <p>The information presented:</p> <p>Extremely valuable AI is something what we all need to learn</p> <p>Extremely valuable Dr. Chu is very well-spoken and quite talented at lecturing in general. This topic was of particular interest to many in the college and Dr. Chu provided a lot of useful, interesting information.</p> <p>Extremely valuable Excellent presentation!</p> <p>Extremely valuable excellent speaker and the slides were high quality and informative</p> <p>Extremely valuable Great information!</p> <p>Extremely valuable Great introduction and some degree of road map to become competent in use of tools. Hoping to use links from seminar to find links.</p> <p>Extremely valuable Great job! So is Dr. Chu using AI for clin path? Blood, BM, cytology?</p> <p>Extremely valuable Great lecture as introduction to use of AI in vet path</p> <p>Extremely valuable Great presentation I haven't been following the topic very closely and so it was nice to have a concise presentation of the information. I review poster abstracts so this was valuable.</p> <p>Extremely valuable Great presentation.</p> <p>Extremely valuable great presentation, easy to follow, lots of new information, many tips on how to improve my skills in using AI. time well spent.</p> <p>Extremely valuable Great presentation. Very informative</p> <p>Extremely valuable Great speaker and great intro to AI and how to use it</p> <p>Extremely valuable I did not know how to use the ChatGPT. I now know that it is possible to learn to use it, and that it can be very helpful once competence is gained.</p> <p>Extremely valuable I have been avoiding using AI to search for help with cases but I feel I can now start using it in my daily work. This was an excellent presentation!</p> <p>Extremely valuable I was on maternity leave when Chat GPT was released and feel behind. This webinar was the perfect level for me as a complete beginner on the topic. She also gave us really helpful practical uses of it</p> <p>Extremely valuable Is there any chance Dr. Chu does another session in the form of a workshop? Going through everything with more examples from beginning to end (using keywords, how to ask the questions, interpret etc).</p> <p>Extremely valuable It is great to see these types of presentations. AI is here to stay, and we must be comfortable using it ethically.</p> <p>Extremely valuable It provided lots of new AI resources of potential use.</p> <p>Extremely valuable It was particularly useful to see how the different versions of chatGPT are improving, and to hear warnings we can pass along to students (don't upload unpublished manuscripts or patient info).</p> <p>Extremely valuable Never had anyone explain the new technology so well</p> <p>Extremely valuable Perfect pathologist to present on an emerging technology. Excellent Dr. Chu.</p> <p>Extremely valuable Thank you that was very informative and entertaining!</p> <p>Extremely valuable The world is evolving with technological advancement. We cannot be left behind as a profession; we should rather embrace it, determine its limitations, and work on it!</p> <p>Extremely valuable This is such an important topic, as terrifying as I find it... Very well presented.</p> <p>Extremely valuable This was an excellent introduction to chatgpt for me. I have heard a lot about it, but didn't know much about what it really is and how it may be able to help me as a diagnostic pathologist.</p> <p>Extremely valuable very structured and interesting lecture, it was easy to understand</p> <p>Extremely valuable Very useful and informative.</p>
2024	<p><b>ChatGPT in Veterinary Medicine.</b> American College of Veterinary Radiology (ACVR) Scientific Conference. Norfolk, VA, USA.</p> <p>Hi Dr. Chu,</p> <p>I am a former member of the TAMU radiology faculty (2006-2014). I now work in Denver.</p> <p>I just wanted to congratulate you on a fantastic presentation today at the ACVR conference. It was wonderfully constructed, and you are a gifted public speaker. I found your material so useful and informative. TAMU is lucky to have you. Great job.</p> <p>Ben Young</p>
2024	<p><b>Next Gen Veterinary Researcher: How I streamline academic writing with AI and digital tools.</b> Research Conversation. TAMU, TX, USA.</p> <p>Thank you again so much for doing these talks Candice! Have had 22 requests for the recording already!</p> <p>I will have questions I am sure once I start playing with these a bit!</p> <p>mike</p>
2024	<p><b>Next Gen Veterinary Researcher: How I streamline academic writing with AI and digital tools and Revolutionizing Veterinary Medicine with ChatGPT: A New Frontier in Artificial Intelligence Applications.</b> American College of Veterinary Internal Medicine (ACVIM) Annual Meeting, ASVCP Specialty Sessions. Minneapolis, MN, USA.</p>

Hi Dr. Chu:

I've just gone through your ACVIM talk a second time, and each time I incorporate another couple of tools that you've taught me. What a masterpiece of timing and knowing what's important to the profession!

#### User Response

This was an amazing talk - I highly recommend more topics like this for future forums

I am a VTS and I do a little writing while trying to balance working and family. This talk has made a huge difference to me for time management in my own life. I thank you and my family thanks you.

Excellent and informative! Of all of the great talks at the Forum this year, this is the one that I can take back with me and apply to my work on Monday! Thank you! It must have been a lot of work putting it together.

I am devastated I didn't know about this sooner

The 2 talks by Dr chu were the best of the entire conference and should have been the keynote. Not recording these virtually was a shame.

Amazing presentation and well placed optimism. Dr. Google helps me practice and teach better. I can't wait to see how ChatGPT will change & improve care. I am sorry I disrupted your talk - I deleted the photo and video after you finished speaking. :(

Good introduction

Great presentation!

This was fantastic and game-changing information. I only wish there were more info on how to use ChatGPT to write my discbaegest

Incredibly informative and thorough. Great organization. Thanks for putting this together

## TEACHING

### Texas A&M University (2024-Present)

#### INNOVATIVE TEACHING:

- 2024-Present      Created 'VetClinPathGPT'  
•      Built a free AI tutor for veterinary students to learn veterinary clinical pathology.  
The AI Chatbot has engaged in more than 5000 conversations:  
<https://chatgpt.com/g/g-rfB5cBZ6X-vetclinpathgpt>
- 2023-Present      Founder of the 'WYD Database'  
•      Built a free, searchable, easy-to-use platform that includes all what's your diagnosis (WYD) articles published in Veterinary Clinical Pathology since 2008: <https://vetclinpath.notion.site/vetclinpath/f5cce72fe6524c4b8511162f0f2fe6ac?v=ef3da7714cf94f9ab15822e961eb5850>
- 2018-Present      Founder of the cytology teaching social media page 'Vet Clin Path Resident'  
•      Established Facebook and Instagram account to innovatively teach cytology to veterinary students and veterinarians. Accumulated over 17,000 followers since 2018. Available at <http://www.instagram.com/vet.clin.path.resident/>

#### TRADITIONAL TEACHING RESPONSIBILITIES:

- 2024      BIMS 602: Found Biomedical Graduate Education & Research  
2024      VIBS 914: Prof & Clinical Skills  
2024      VTPB 927: Clinical Laboratory Medicine - Clinical Pathology

Academic Year	Semester	Course #	Course Name	Student Number	Topic	Lecture Hours	Lab Hours
2024	Fall	VTPB 927	Clinical Pathology	182	Monovalent Electrolytes, Acid-base	3	4
2024	Fall	VSCS 948	Innovation in Veterinary Medicine	65	AI Panel	1	0
2024	Fall	BIMS 602	Found Biomedical Graduate Education & Research		How to use AI and digital tool to streamline academic writing	1	0
<b>2024 Total Lecture=5 hours; Total Lab=4 hours</b>							

#### RESIDENT/INTERN TRAINING RESPONSIBILITIES:

- 2024-Present      Weekly Cytology Rounds (VTPB and VSCS interns and residents)  
2024      Interpretation Quiz Rounds (Anatomic pathology residents)

#### THANK YOU LETTERS:

Course Name	Thank you letters

VIBS 914 Prof & Clinical Skills	<p>Good morning,</p> <p>I just wanted to take a moment to thank each of you for your time and willingness to participate in a panel discussion for our students. It was very well received and enlightening for them. Particularly, I don't know that any of the students (or I) had considered the environmental impact of AI and I've had a couple students bring that up in one of our course assignments.</p> <p>I appreciate your time and expertise.</p> <p>Jordan</p>
Anatomic Patholog y Gross Round	<p>Dear Candice,</p> <p>Thank you so much for the wonderful clin path seminar for our anatomic pathology residents! This seminar helps them to prepare for Phase II of the ACVP Boards.</p> <p>Thank you for the additional references post-seminar as well!</p> <p>Best, Raquel</p>
VTPB 927 Clinical Patholog y	<p>Dr. Chu,</p> <p>Thank you for being such an organized and thoughtful professor. Your detailed notes were incredibly helpful, and I deeply appreciated how openly you spoke about supporting one another during difficult times. Your kindness + compassion truly made an impact.</p> <p>Have a great winter break!</p> <p>[REDACTED] '27</p>

University of Pennsylvania (2021-2023)

**TEACHING RESPONSIBILITIES:**

2022 VPTH 606: Clinical Pathology (131 students; 9 lectures, 2 lab, 11 contact hours)

Academic Year	Semester	Course #	Course Name	Student Number	Topic	Lecture Hours	Lab Hours
2022	Spring	VPTH 606	Clinical Pathology	131	Renal, Electrolytes, Calcium, Review	9	2
<b>2022 Total Lecture=9 hours; Total Lab=2</b>							

#### Teaching Evaluation:

Course Name	Average Score	Student comments
VPTH 606 Clinical Pathology	4.39 (1-5 scale)	<p>Very organized</p> <p>I loved Dr. Chu's lectures. My only issue with her lectures was that there was not enough time for discussion of the cases which I feel is essential for this class</p> <p>Powerpoints were very organized and helpful!</p> <p>Great explanations and her slides really helped me consolidate material when I was studying. It does require a bit more work on my end because she provides a lot of information in one lecture, but it is thorough and helps me understand the material.</p> <p>I really liked Dr. Chu's lectures in clin path. They were very detailed and I appreciated the use of powerpoints because there was often information that I missed during class.</p> <p>DR. CHU IS LITERALLY AMAZING!!! SHE MAKES THE MATERIAL SO ENGAGING AND HELPS WITH SLIDES I UNDERSTAND SO MANY CORE CONCEPTS BECAUSE OF HER</p> <p>Very organized!</p> <p>Love the flow charts. Wonderful professor.</p> <p>AMAZING presentation of the information. Loved the repetition and tricks to remember certain items</p> <p>Your lectures were extremely clear and effective. You are a great presenter. Thank you.</p>

#### Texas A&M University (20214-2021)

#### TEACHING RESPONSIBILITIES:

2014	POSC 660 Experimental Immunology (16 graduate students; 72 hours)
2016-2017	VTPP 638 Analysis of Genomic Signals (13 graduate students; 2 hours)
2018	VMID 689 Special Topics (26 graduate students; 1 hour)
2018-2021	VTPB 940 Clinical Diagnostics (304 veterinary students; 351.9 hours)
2018-2020	VTPB 927 Clinical Laboratory Medicine (437 veterinary students; 41 hours)
2019	BIMS 602 Foundations in Biomedical Graduate Education and Research (31 graduate students; 1 hour)
2019	VIBS 914 Professional & Clinical Skills II (141 students; 6 hours)
2019-2020	VIBS 936 Vets in Society (318 veterinary students; 2 hours)
2020	Veterinary Intern Skills Laboratories (10 veterinary interns; 3 hours)
2020	VTHT 2223 Veterinary Clinical Pathology, Blinn College, Bryan, TX (16 students; 4 hours)

Academic Year	Semester	Course #	Course Name	Student Number	Topic	Lecture Hours	Lab Hours

2014	Fall	POSC 660	Experimental Immunology	16	Teaching Assistant	0	72
<b>2014 Total Lab TA=72 hours</b>							
2016	Fall	VTPP 638	Analysis of Genomic Signals	7	How to analyze RNA-seq data	1	0
<b>2016 Total Lecture=1 hour</b>							
2017	Fall	VTPP 638	Analysis of Genomic Signals	6	How to analyze RNA-seq data	1	0
<b>2017 Total Lecture=1 hour</b>							
2018	Fall	VMID 689	Special Topics	26	Design a Great Slide Presentation	1	0
2018	Fall	VTPB 940	Clinical Diagnostics	52	Small group discussion	48.5	0
2018	Fall	VTPB 927	Clinical Laboratory Medicine	137	Hematology, cytology, and urinalysis	0	16
<b>2018 Total Lecture=49.5 hours; Total Lab TA=16 hours</b>							
2019	Spring & Summer& Fall	VTPB 940	Clinical Diagnostics	94	Small group discussion	118	0
2019	Spring	VIBS 914	Professional & Clinical Skills II	141	Basic hematology	0	6
2019	Fall	BIMS 602	Foundations in Biomedical Graduate Education and Research	31	Keys to Successful Scientific Presentations	1	0
2019	Fall	VTPB 927	Clinical Laboratory Medicine	141	Hematology, cytology, and urinalysis	1	12
2019	Fall	VIBS 936	Vets in Society	159	Resident panel	1	0
<b>2019 Total Lecture=121 hours; Total Lab TA= 18 hours</b>							
2020	Spring & Summer & Fall	VTPB 940	Clinical Diagnostics	114	Small group discussion	127.9	0
2020	Fall	VTPB 927	Clinical Laboratory Medicine	159	Hematology, cytology, and urinalysis	0	12
2020	Fall	VIBS 936	Vets in Society	159	Resident panel	1	0
2020	Fall	N/A	Veterinary Intern Skills Laboratories	10	Hematology, Cytology, and ProCyte Dot	3	0

					Plot Interpretation		
2020	Fall	VTHT 2223	Veterinary Clinical Pathology	16	Blinn College, Bryan, TX	4	0
<b>2020 Total Lecture=135.9 hours; Total Lab TA= 12 hours</b>							
2021	Spring	VTPB 940	Clinical Diagnostics	44	Small group discussion	57.5	
<b>2020 Total Lecture=57.5 hours</b>							

### Teaching Evaluation

Course Name	Student comments
VTPB 940 Clinical Diagnostics	<p>Dr Chu did an awesome job with us, really teaching us important concepts and staying relaxed and keeping us focused. She is very smart and kind.</p> <p>You're doing great! I learned a good deal.</p> <p>She was a kind and considerate teacher who was very concerned about student learning.</p> <p>Always helpful and patient with us.</p> <p>Dr. Chu was very helpful and tried to give us a good overview of hematology and cytology. I liked that she showed us pictures and wrote on the board as we went over topics.</p> <p>helped me develop a logical problem-solving approach. The rotation was organized and provided the student with a learning experience. Overall i feel like a learned a lot and acquired a lot of knowledge. Rounds were fantastic and i acquired a lot of knowledge through</p> <p>It is apparent that she is very interested in pathology. She is very intelligent and a good teacher.</p> <p>Enjoyed the teachings on the white board! Sometimes it was unclear what you were looking</p> <p>I feel more comfortable with hematology and urinalysis</p> <p>could explain things further.</p> <p>I enjoyed your teaching style.</p> <p>Dr. Chu provided the most effective explanation of acid-base in relation to anion gap I have ever heard and I will carry it with me through the rest of clinics with a much better</p> <p>Dr. Chu is very knowledgeable. She is also friendly and easy to approach with questions. The only thing she taught us that was slightly confusing was acid-base status. I felt like I understood it before this rotation, but the way that information was taught made the subject confusing.</p> <p>You are awesome and very smart!</p> <p>She was very patient and an excellent teacher. I really appreciated how she would take the time in class to work through things that she knew we were struggling with.</p> <p>You are very personable and interactive. I enjoyed learning from you!</p> <p>Extra emailed material was very helpful, especially when we went over it together.</p>

### RESIDENT/INTERN TRAINING RESPONSIBILITIES:

2022-2023	General Pathology Rounds – Hemostasis (Anatomic pathology residents; 1 contact hour)
2022-2023	Capstone Experience – Penn Vet Diagnostic Laboratories (Penn Vet; 1 contact hour)
2022-2023	Student Faculty Networking Program – Cytology experience (Penn Vet; 4 contact hours)
2021-2023	Clinical Pathology Journal Club (Texas A&M University; 3 contact hours)

2021-2023	Clinical Pathology Elective Rotation (9 CSAM and external interns and residents; 146 contact hours)
2021-2023	Monthly clinical pathology rounds (CSAM and Pathobiology interns and residents; 6 contact hours, 2 preparation hours)
2021-2023	Clinical Pathology Journal Club (Tufts University and University of Florida; 20 contact hours)

#### **STUDENT TRAINING/MENTORING:**

##### **Predoctoral**

2024-Present	Kimberly Archbold, PhD student, University of Georgia
2020-2024	Ariana Cherry, PhD student, Texas A&M University

##### **Postdoctoral**

2025-Present	Dr. Chun-Yu Chang, master's student, Texas A&M University
2023-Present	Dr. Dion Dewanada, veterinary clinical pathology resident, University of Illinois
2022-Present	Dr. Samuel Neal, veterinary clinical pathology resident, Ohio State University
2022	Dr. Jaspreet Kaur, veterinary clinical pathology resident, Cornell University
2022	Dr. Brittany Rasche, anatomic pathology resident, North Carolina State University
2021-Present	Dr. Zi-An Yu, veterinary clinical pathology resident, Purdue University
2021	Dr. Wei-Ming Su, PAVE program student, Louisiana State University

#### **STUDENT ORGANIZATIONS:**

2024-Present	Faculty advisor, Taiwanese Student Association, TAMU
2022-2023	Faculty advisor, Student-Faculty Networking Program, Penn Vet
2022-2023	Faculty advisor, Association of Asian Veterinary Medical Professionals, Penn Vet
2022-2023	Faculty advisor, Taiwanese Student Association, UPenn
2019	Vice Present, CVM Postdoctoral Association (PDA), TAMU
2015	Secretary, Taiwanese Student Association, TAMU

## CLINICAL SERVICE

### Texas A&M University (2024-Present)

Title of Service	Number of Months on Clinics per Year	Number of Weeks/Weekends on Clinics per Month	Number of Days on Clinics per Week	Number of Hours on Clinics per Day	Average Number of Cases on Clinics per Day	Total Number of Cases Diagnosed to Date
Cytology Review	12	1-2	5	9	9	338

### University of Pennsylvania (2021-2023)

Title of Service	Number of Months on Clinics per Year	Number of Weeks on Clinics per Month	Number of Days on Clinics per Week	Number of Hours on Clinics per Day	Average Number of Cases on Clinics per Day	Total Number of Cases Diagnosed to Date
Cytology Review	12	1-2	5	9	21	1593

### CLINICAL PATHOLOGY EXTERNSHIPS:

- 2020 Nov-Dec Digital pathology externship at Charles River Laboratories (remote)  
 Mentor: Mark Smith, VMD, PhD, DACVP (Anatomic Pathologist)  
     Angela Wilcox, BVSc, MS, DACVP, DABT (Clinical Pathologist)
  - Participated in the development of a deep learning artificial intelligence (AI) method to provide decision support for evaluation of bone marrow cellularity in the cynomolgus monkey.
  - Thoroughly reviewed a toxicologic study from data interpretation to report generation with A.W.
- 2020 Feb Texas A&M Veterinary Medical Diagnostic Laboratory, College Station, TX  
 Mentor: Julie Piccione, DVM, MS, DACVP (Clinical Pathology Section Head)
  - Engaged in real-time diagnostic evaluation of specimens (glass slides and digital images) under the supervision of clinical pathologists.
  - Learned client-centered communication skills and conflict management through observing follow-up consultations requested by practicing veterinarians.
- 2019 Dec ASVCP-sponsored two-week externship at IDEXX Laboratories (Westbrook, ME)  
 Mentor: Sarah Peterson, MD, PhD (Clinical Research Manager)
  - Exposed to the IDEXX culture and a wide variety of current topics and issues in the fast-paced work environment through participating in laboratory tours, shadowing the clinical research manager, and attending regular meetings with the R&D and Medical Affairs team members.
  - My IDEXX externship report is available at  
[https://www.asvcp.org/page/RAC\\_ExternshipReports](https://www.asvcp.org/page/RAC_ExternshipReports)
- 2016 Aug Purdue University, West Lafayette, IN  
 Mentor: Craig A. Thompson, DVM, DACVP (Clinical Associate Professor)
  - Successfully interpreted 23 chemistry cases and diagnosed 15 cytology cases in the two-week ACVP clinical pathology externship and gained experience from reading 41

bone marrow slides at the Purdue Bone Marrow Workshop.

- Offered a clinical pathology residency position in Nov 2017.