CURRICULUM VITAE
Michael F. Criscitiello, PhD
October 2022

I. PRESENT POSITION AND PERSONAL DATA:

Title: Professor, Veterinary Pathobiology
Associate Dean for Research and Graduate Studies

Office: 317W VENI
Comparative Immunogenetics Lab
College of Veterinary Medicine
and Biomedical Sciences
Texas A&M University

Phone: 979 845 5092
FAX: 979 862 1088
Email: mcriscitiello@cvm.tamu.edu
Lab website:
http://vetmed.tamu.edu/comparative-immunogenetics-lab

Joint Appointment: Department of Microbial Pathogenesis and Immunology (courtesy)
College of Medicine
Texas A&M Health Science Center

II. EDUCATION:

Degree/Training	Conferring Institution	Field	Year
B.S.	University of North Carolina - Chapel Hill	Biology	1989-1993
M.S.	East Carolina University	Molecular Biology	1995-1997
Ph.D.	University of Miami	Immunology	1997-2003
Post-doc	University of Maryland - Baltimore	Immunology	2003-2008

III. PROFESSIONAL EXPERIENCE, ACADEMIC APPOINTMENTS AND ACTIVITIES:

Appointments:

1990-1995; Lab Assistant while undergrad and Technician two years post-bac, Lineberger Comprehensive Cancer Center, Department of Microbiology and Immunology, University of North Carolina Chapel Hill. Supervisor: Dr. Jenny Ting.

1993; Teaching Assistant, Fundamentals of Biology laboratory, University of North Carolina Chapel Hill. Supervisor: Dr. Jean Desaix.

1995-1997; Teaching Assistant, Comparative Botany and Zoology laboratory, East Carolina University. Supervisor: Dr. Vince Bellis.

1998; Teaching Assistant, Microbiology laboratory, University of Miami. Supervisor: Dr. George Schiaberger.

2003; Adjunct Professor, Concepts of Biology, Nova Southeastern University. Dean: Dr. Naomi D'Alessio.

2003; Adjunct Professor, Microbiology and Immunology, General Biology, Miami-Dade Community College. Chair: Dr. Jorge Obeso.
2005-2007; Lecturer, Host Defense and Infectious Disease, medical student immunology and gene therapy small group discussions, University of Maryland at Baltimore. Supervisor: Dr. Dan Schulze.
2008-2014; Assistant Professor in Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2008-present; Ecology and Evolutionary Biology Interdisciplinary Research Program, Texas A&M University
2008-present; Interdisciplinary Graduate Program in Genetics, Texas A&M University
2010-present; Interdisciplinary Program in Toxicology, Texas A&M University
2010-present; Professional Program in Biotechnology, Texas A&M University
2014-present; joint appointment, Department of Microbial Pathogenesis and Immunology, College of Medicine, Texas A&M Health Science Center
2014-2019; Associate Professor with tenure, Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2015-2017; Associate Department Head for Research and Graduate Studies, Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2015-2017; Graduate Advisor, Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2017-2021; Assistant Dean for Research and Graduate Studies, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2019-present; Professor, Veterinary Pathobiology, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University
2021-present; John Tom Campbell ’45 Research Chair
2021-present; Associate Dean for Research and Graduate Studies, College of Veterinary Medicine and Biomedical Sciences, Texas A&M University

Career enhancement activities:
2009; Faculty Teaching Academy
2009; Office of Proposal Development Grant Writing Course
2014; QPR Suicide Prevention Training, recurring
2015; SEC Academic Collaboration Award Workshop, Keynote Speaker
2016; Completed Basic Mediation Training, Center for Change and Conflict Resolution
2018; Purdue Program for Diversity and Inclusion in Veterinary Medicine

IV. AWARDS AND HONORS:

1995 and 1996; McDaniel Scholarship for Excellence in Graduate Research, East Carolina University Department of Biology

2000; International Society of Developmental and Comparative Immunology travel award to present at International Society for Developmental and Comparative Immunology Congress in Cairns, Australia
2001; University of Miami Department of Microbiology and Immunology Graduate Student Appreciation Award
2001; Margaret Whelan Graduate Student Scholarship Fund Travel Award
2003; Ruth L. Kirchstein National Research Service Award (NIH F32)*
2006; Bectin Dickenson Biosciences travel award to speak at γδT Cell Conference, Salk Institute, La Jolla CA
2007; American Association of Immunologists travel award to speak at International Immunology in Rio de Janeiro, Brazil
2010; American Association of Immunologists Junior Faculty Travel Grant to speak at AAI Baltimore
2011; Montague – TAMU Center for Teaching Excellence Scholar Award
2013; American Association of Immunologists Junior Faculty Travel Grant to speak at AAI Honolulu
2013; SEC Faculty Travel Grant to establish collaboration at Vanderbilt University Medical Center
2014; TAMU CVMBS Outstanding Research Achievement Award
2017; TAMU CVMBS Outstanding Graduate Student Mentor Award
2018; TAMU CVMBS Outstanding Scientific Achievement
2018; TAMU Presidential Impact Fellow

V. TEACHING ACTIVITIES:

At Texas A&M my teaching focuses on training students in molecular immunology at the bench in my laboratory as well as teaching a complete semester long immunology class every spring. The teaching in my lab has extended not only to graduate students and undergraduates, but also to veterinary students, high school students, visiting national and international scholars and high school teachers. When we had more immunologists I alternated my spring teaching: even years I teach a large undergraduate general immunology class for juniors and seniors (VTPB409) with a new honors section beginning this spring, odd years I would offer my unique Comparative Immunology and Immunogenetics (VTPB415/VTMI615) for a few seniors but targeted to graduate students and residents who have strong fundamentals in immunology and genetics, and possibly comparative, veterinary or evolutionary interests. I have also run and taught an immunology block for a techniques laboratory course (BIOT602) for students in the Professional Program in Biotechnology, teach a three-week module of the graduate Advanced Immunologic Concepts (VTMI662), our Veterinary Pathobiology and Infection Immunity and Epidemiology seminar series fall and spring (VTMI681) and give many guest lectures in other courses.

TEXAS A&M TEACHING EXPERIENCE:

Undergraduate	**Course No.**	**Lectures/Labs Contributed**	**Semester**	**Contact Hours**	**No. of Students**
Intro to Immunology	VTPB 409 (Mwangi)	3	Spring 2009	3	50
Biomedical Microbiology	VTPB 405 (Omran)	2	Summer 2009	4	50
Biomedical Genetics	GENE 320 (Murphy)	1	Fall 2009	1.5	50
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2009	1.5	50
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2010	39	3
Intro to Immunology	VTPB 409 (Omran)	3	Spring 2010	3	50
Biomedical Microbiology	VTPB 405 (Omran)	2	Summer 2010	4	50
Biomedical Genetics	GENE 320 (Seabury)	3	Summer 2010	6	30
Intro to Immunology	VTPB 409 (Omran)	3	Fall 2010	3	50
Disease Mgmt Fish Aquacul	WFSC 427 (Buentello)	1	Fall 2010	1.5	20
Biomedical Genetics	GENE 320 (Murphy)	1	Fall 2010	1.5	50
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2010	1.5	50
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2011	39	3
Intro to Immunology	VTPB 409 (Omran)	3	Spring 2011	3	50
Biomedical Genetics	GENE 320 (Derr)	1	Spring 2011	1.5	30
Biomedical Microbiology	VTPB 405 (Omran)	2	Summer 2011	4	50
Biomedical Genetics	GENE 320 (Murphy)	1	Fall 2011	1.5	50
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2011	1.5	50
Biomedical Genetics	GENE 320 (Dindot)	1	Fall 2011	1	50
Biomedical Genetics	GENE 320 (Seabury)	1	Spring 2012	1	30
Intro to Immunology	VTPB 409 (Criscitiello)	all (42)	Spring 2012	42	61
Biomedical Genetics	GENE 320 (Derr)	1	Spring 2012	1.5	30
Biomedical Microbiology	VTPB 405 (Omran)	2	Summer 2012	4	50
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2012	1.5	50
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2013	39	3
Biomedical Genetics	GENE 320 (Seabury)	1	Spring 2013	1.5	30
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2013	1.5	50
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2014	42	63
Biomedical Genetics	GENE 320 (Derr)	1	Spring 2014	1.5	30
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2014	1.5	50
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2015	39	15
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2015	1.5	50
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2016	42	59
Mammalian Genetics	GENE 405 (Womack)	1	Fall 2016	1.5	50
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2017	39	35
Intro to Immunology	VTPB 409 (Tizard)	3	Spring 2017	3	52
Mammalian Genetics	GENE 405 (Derr)	2	Fall 2017	3	75
Intro to Biomed Sci	BIMS 101 (Tian)	3	Spring 2018	3	225
Immunogen & Comp Immun	VTPB 415 (Criscitiello)	all (29)	Spring 2018	39	15
Mammalian Genetics	GENE 405 (Derr)	2	Fall 2018	3	75
Intro to Biomed Sci	BIMS 101 (Tian/Busch)	4	Spring 2019	4	265
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2019	39	113
Mammalian Genetics	GENE 405 (Derr)	2	Fall 2019	3	82
21st Cent Biol Threats	BIMS 489 (Young)	1	Fall 2019	2	50
Intro to Biomed Sci	BIMS 101 (Tian/Busch)	1	Fall 2019	5	244
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2020	39	107

Undergraduate *continued*	**Course No.**	**Lectures/Labs Contributed**	**Semester**	**Contact Hours**	**No. of Students**
Intro to Biomed Sci	BIMS 101 (several)	5	Spring 2020	5	302
Mammalian Genetics	GENE 405 (Derr)	2	Fall 2020	3	78
Intro to Biomed Sci	BIMS 101 (several)	4	Fall 2020	4	221
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2021	39	88
Intro to Biomed Sci	BIMS 101 (several)	4	Fall 2021	4	237
Intro to Immunology	VTPB 409 (Criscitiello)	all (29)	Spring 2022	39	97
Intro to Biomed Sci	BIMS 101 (Tian/Ivanov)	2	Fall 2022	2	130

Graduate	**Course No.**	**Lectures/Labs Contributed**	**Semester**	**Contact Hours**	**No. of Students**
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2009	12	12
Immunogen & Comp Immun	VTPB 615 (Criscitiello)	all (34)	Spring 2010	49	5
Disease Mgmt Fish Aquacul	WFSC 689 (Buentello)	1	Fall 2010	1.5	20
Immunogen & Comp Immun	VTMI 615 (Criscitiello)	all (34)	Spring 2011	49	5
Theory of Research	VIBS 690 (Skow)	1	Spring 2011	1.5	4
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2011	12	9
Biotech Princip & Tech II	BIOT 602 (Criscitiello)	6	Spring 2012	24	3
Immunogen & Comp Immun	VTMI 615 (Criscitiello)	all (37)	Spring 2013	51	8
Biotech Princip & Tech II	BIOT 602 (Criscitiello)	6	Spring 2013	24	4
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2013	12	17
Immunogen & Comp Immun	VTMI 615 (Criscitiello)	all (37)	Spring 2015	64	43
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2015	12	20
Seminar in Biotechnology	BIOT 681 (Ugaz)	1	Fall 2016	1	39
Mol & Immuno Parasitology	VPAR 605 (Zhu)	2	Fall 2016	2.5	4
Vet Path Seminar	VTMI 681 (Criscitiello)	0	Fall 2016	13	35
Immunogen & Comp Immun	VTMI 615 (Criscitiello)	all (37)	Spring 2017	64	20
Immunology	VTMI 649 (Farnell)	3	Spring 2017	3	80
Vet Path Seminar	VTMI 681 (Criscitiello)	0	Spring 2017	13	35
Mechanisms of Aging	VIBS 681 (Gaddy)	1	Spring 2017	1	13
Vet Path Seminar	VTMI 681 (Criscitiello)	0	Spring 2017	13	35
Mol & Immuno Parasitology	VPAR 605 (Zhu)	2	Fall 2017	2.5	6
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2017	12	2
Vet Path Seminar	VTMI 681 (Criscitiello)	14	Fall 2017	14	35
Intro to Biom Sci NT	VIBS 650 (Rijnkels)	3	Fall 2017	3	46
Immunogen & Comp Immun	VTMI 615 (Criscitiello)	all (37)	Spring 2018	64	10
Scientific Ethics	VMID 686 (Johnson)	1	Spring 2018	1	41
Intro to Biom Sci NT	VIBS 650 (Rijnkels)	3	Spring 2018	3	21
Vet Path Seminar	VTMI 681 (Criscitiello)	14	Spring 2018	14	35
Vet Path Seminar	VTMI 681 (Criscitiello)	14	Fall 2018	14	4
Scientific Ethics	VMID 686 (G Johnson)	1	Spring 2019	1	44
Vet Path Seminar	VTMI 681 (Criscitiello)	14	Spring 2019	14	9
Relational Biol Models	VTPP 689 (Ivanov)	2	Spring 2019	3	7
Mam Genomics & Bioinfor	VTPB 613 (Seabury)	1	Spring 2019	1	11
Vet Path Seminar	VTMI 681 (Criscitiello)	14	Fall 2019	14	9
Adv Immunologic Concepts	VTMI 662 (Criscitiello)	6	Fall 2019	12	6
Scientific Ethics	VMID 686 (G Johnson)	1	Spring 2020	1	40

Vet Path Seminar	VTMI 681 (Criscitiello)	14	Spring 2020	14	9
Relational Biol Models	VTPP 689 (Ivanov)	2	Spring 2020	3	7
Intro to Biom Sci NT	VIBS 650 (Rijnkels)	3	Spring 2020	3	18
Mol & Immuno Parasitology	VPAR 605 (Zhu)	2	Spring 2020	2.5	5
Vet Path Seminar	VTMI 681 (Criscitiello)	13	Fall 2020	13	5
Scientific Ethics	VMID 686 (G Johnson)	1	Spring 2021	2	40
Vet Path Seminar	VTMI 681 (Criscitiello)	13	Spring 2021	13	5
Mammalian Immunobiology	MSCI 689 (West)	1	Fall 2021	1.5	20
Intro to Biomed Sciences	BIMS 602 (Criscitiello)	1	Fall 2021	2	23
Intro to Biomed Sciences	BIMS 602 (Criscitiello)	11	Fall 2022	22	24
Mammalian Immunobiology	MSCI 689 (West)	2	Fall 2021	3	20

STUDENTS IN THE COMPARATIVE IMMUNOGENETICS LAB

High School Students

2009 Audrey Vitter, A&M Consolidated High School Student Researcher, currently Internal Consultant at General Electric, Erie PA

2014 Heather Weir, A&M Consolidated High School Student Researcher, currently matriculating to PA school at UTMB Galveston for fall 2018, Galveston TX

2014 Jenna Harrison, A&M Consolidated High School Student Researcher, currently nursing school

2015 Naomi McCauley, A&M Consolidated High School Student Researcher, currently medical student, College Station TX

2016 Ellen Li, A&M Consolidated High School Student Researcher, currently Rice University student, Houston TX

2017 Sydney Pham, A&M Consolidated High School Student Researcher, currently U. of Texas student, Austin TX

2018 Christi Koufteros, A&M Consolidated High School Student Researcher, currently Bowdoin College student, Portland ME

Undergraduate Research

2008-2009 Andrea Wallace, Genetics/Biochemistry & Biophysics Undergraduate Research Student, currently Assistant Professor, Lonestar College, Houston TX

2009 Brendan Jacobs, Genetics/Biochemistry & Biophysics Undergraduate Research Student, currently Chemist with St. Gobain Inc., Houston TX

2010-2011; Zach Olschwanger, BIMS Undergraduate Research Student, currently Owner and Manager of Austin Bouldering, Austin TX

2010-2011; Jonathan Walker, Biology Undergraduate Research Student, currently Nurse Anesthetist, Bryan Anesthesiology Associates, Bryan TX

2011; Natalie Jacobs, BIMS Undergraduate Research Student, currently in Research Technician, M.D. Anderson Cancer Center, Houston TX

2013; Mikaela Gondolfe, BIMS Undergraduate Research Student, currently DVM student at Texas

A&M University, College Station TX
2015; Katie Brock, BIMS Undergraduate Research Student, currently DVM student at Texas A&M University, College Station TX
2015; Alex Bass, BIMS Undergraduate Research Student, currently MD student at Texas Tech, Lubbock TX
2015; Rebecca Daniel, BIMS Writing Intensive Undergraduate Research Student, currently DVM student Lincoln University, Harrogate TN
2016; Jenna Harrison, BIMS Writing Intensive Undergraduate Research Student, currently student in Texas A&M School of Nursing, College Station TX
2016; Kehan Vohra, BIMS Undergraduate Research Student, currently MD student UT Southwestern, Dallas TX
2017; Conneley Sears, Genetics Undergraduate Research Student, currently applying to veterinary school
2018; Madeleine Pohlmann, BIMS Undergraduate Research Student, currently DVM student at UC Davis
2018-2019; Kaitlyn Romoser, Environmental Sciences and Oceanography Undergraduate Research Student, currently full-time technician in my lab in gap year
2019-present; Ruth Scego, Nutrition, Undergraduate Research Student
2019- present; Omar Manzur, Biochemistry, Undergraduate Research Student
2019- present; Clair Christian, BIMS, Undergraduate Research Student

Undergraduate Teaching Scholars Capstone (LAUNCH)
2020-2021; Joshua Korb (Immunology VTPB 409 Honors section)

Graduate Directed Studies
2009-2010; Camilo Pohlenz-Castillo, Wildlife & Fisheries PhD Student, currently Product Developer, BioMar Aquaculture, Jaco, Costa Rica
2009-2010 Dhivya Ramakrishnan, Biotechnology Program MS Student, currently Research Associate at Gilead Virology, Foster City CA
2011-2012; Christina Du, Comparative Medicine Resident, currently Interim Director of Comparative Medicine, Scott and White Hospitals, Temple TX
2011; Shehnaz Lokhandwala, Biotechnology Program MS Student, currently Postdoctoral Research Fellow, Kansas State, Manhattan KS
2011-2013; Natalie Jacobs, BIMS Non-thesis Option MS student, currently in Research Technician, M.D. Anderson Cancer Center, Houston TX
2012-2014; Ashley Peterson, Comparative Medicine Resident, deceased
2016; Dana Pollard, Veterinary Pathobiology, currently Animal Health Technician at Health Resources and Services Administration, Baton Rouge LA
2017; Katie Cerami, BIMS Non-thesis Option MS student, currently applying to medical school
2017; Danielle Garza, BIMS Non-thesis Option MS student, currently applying to medical school
2018; Troy Lobue, MS Non-thesis Option MS student
2018-2019; Brooke Norwood, Biotechnology MS student, Currently Research Scientist Takeda

Inc., Cambridge MA
2018; Rolando Gomez, BIMS MS Non-thesis Option MS student, Currently PA school
2019; Abishai Dominic Louis Raj, PhD Medical Sciences
2020; Shilpa Varrier, BIMS Non-thesis Option MS student
2021; Anika Felix, BIMS Non-thesis Option MS student

DVM Student Research
2011; Anna Goodroe, Veterinary Medical Scientist Research Training Program, currently Veterinarian at Wisconsin National Primate Research Center, Madison WI
2013 and 2014, Ashley Heard-Ganir, Veterinary Medical Scientist Research Training Program, currently Veterinarian at Carrolton West Pet Hospital, Dallas TX
2016, Natalie Castell, Veterinary Medical Scientist Research Training Program, currently DVM student Texas A&M, College Station TX
2021, Nicole Glenn, Veterinary Medical Scientist Research Training Program, currently DVM student Texas A&M, College Station TX

Graduate Teaching Academy Mentees
2015, Lindsay Porter, Currently Assistant Professor of Biology at Northwestern State University, Natchitoches LA
2018, Eduard Davila, Current Mentee

Graduate Rotation Students
2014; Courtney Caster, Genetics, completed MS in Paul Hardin's TAMU Biology
2018; Christian Mitchell, Biomedical Sciences, stayed with Criscitiello
2019; Ashley Marchland, Genetics
2019; Cody Horton, Biomedical Sciences

High School Teachers
2013-2016; Matt Young, A&M Consolidated High School, funded by American Association of Immunologists High School Teacher's Program Fellow
2016-2017; Chad Bronowski, A&M Consolidated High School
2018-present; Director of American Association of Immunologists High School Teacher Program. Briefly: manage application and selection of 6-10 teachers, pair them in AAI immunologists laboratories near them to conduct summer research after immunology short course, review their curriculum development, review and host their national presentations.

Visiting Domestic Scholars
2015; Dr. Pierette Appasamy, Chatham University, Pittsburgh PA (funded by American Association of Immunologists Travel for Techniques Program to learn *Xenopus* larval thymectomy with us)
2018; Hanover Matz, University of Maryland; Institute of Marine and Environmental

Technology, Baltimore MD
2019; Eloise Cave, Florida Institute of Technology, Melbourne FL

Visiting International Scholars
2010; Dr. Helen Dooley, Wyeth, Aberdeen, United Kingdom
2013; Alex Salazar, University of Sonora, Hermosillo, Mexico
2014; Dr. Aldo Flores, C.I.A.D., Hermosillo, Mexico
2015; Dr. Sebastian Fugmann, Chang Gung University, Taipei Taiwan
2016; Dr. Leonardo Sena, Universidade Federal do Pará, Belem Brazil
2017; Ana Paola López Reyes Guerrero, University of Sonora, Hermosillo, Mexico
2017; Tatiana Maia de Oliveira, Universidade Federal do Pará, Belem Brazil
2018; Dr. Maria Paula Cruz-Schneider, Universidade Federal do Pará, Belem Brazil
2019; Bruna Cristina Dias, Universidade Estadual de Campinas, Campinas Brazil

Graduate Student Advisory Committees

Wooki Kim	PhD (Nutrition)	TAMU	Member	2008
Dhivya Ramakrishnan	MS (Biotechnology)	TAMU	**Advisor**	2010
Christina Du, DVM	MS (Comp Med)	TAMU	**Advisor**	2011
Negin Mirhosseini	PhD(Vet Micro)	TAMU	Member	2011
Rachel Wright	PhD (Genetics)	TAMU	**Advisor**	2011
Shehnaz Lokhandwala	MS (Biotechnology)	TAMU	**Advisor**	2011
Amy Romoser	PhD (Toxicology)	TAMU	**Co-Advisor**	2012
Colleen Fisher	MS (Vet Micro)	TAMU	Member	2012
Christine Vuong	MS (Vet Micro)	TAMU	Member	2012
Xinxin Wang	PhD (Immunology)	U of New Mexico	Member	2012
Smriti Shankar	MS (Biotechnology)	TAMU	Member	2013
Aditi Kaushik	MS (Biotechnology)	TAMU	Member	2013
Greg Vo	MS (BIMS NTO)	TAMU	Member	2013
Cody Martin	MS (BIMS NTO)	TAMU	Member	2013
Sara Mashoof	PhD (Vet Micro)	TAMU	**Advisor**	2014
Brenna Shannahan	MS (BIMS NTO)	TAMU	Member	2013
Sarah Herlihy	PhD (Biology)	TAMU	Member	2014
Natalie Jo Jacobs	MS (Vet Micro)	TAMU	**Advisor**	2015
Ivy Zichao	MS (Biology NTO)	TAMU	Member	2014
Katie Zychowski	PhD (Toxicology)	TAMU	Member	2014
Katina Krasnec	PhD (Immunology)	U of New Mexico	Member	2014
Geddy Hamblin	MS (Biotechnology)	TAMU	Member	2014
Ashley Peterson, DVM	MS (Comp Med)	TAMU	**Advisor**	(2014†)
Shehnaz Lokhandwala	PhD (Vet Micro)	TAMU	Member	2016
Christine Vuong	PhD (Vet Micro)	TAMU	Member	2017

Natalie Castell	MS (BIMS NTO)	TAMU	Member	2014
Jeffrey Kim	MS (BIMS NTO)	TAMU	Member	2014
Yvette Hailey	PhD (Genetics)	TAMU	Member	2015
Mary Schneck	MS (VIBS)	TAMU	Member	2016
Maria Mendozo-Rodriguez	MS (Fisheries)	TAMU	Member	2014
Thad Deiss	PhD (Vet Micro)	TAMU	**Advisor**	2019
Stacie Seelye, DVM	MS (Comp Med)	TAMU	**Advisor**	2016
Lindsay Miller	MS (BIMS NTO)	TAMU	Member	2017
Rachel Hoyle	MS (BIMS NTO)	TAMU	Member	2015
Aishwarya Nambiar	MS (Biotechnology)	TAMU	**Advisor**	2014
Dana Pollard	PhD (Vet Micro)	TAMU	Member	2017
Mary Yu	PhD (Vet Micro)	TAMU	Member	2018
Chelsea Grams	MS (Genetics NTO)	TAMU	Member	2015
Bre Breaux	PhD (Vet Micro)	TAMU	**Advisor**	2018
Emily McCann	MS (BIMS NTO)	TAMU	Member	2016
Donna Rios	MS (Biotechnology)	TAMU	**Advisor**	2015
Prahelika Reddy	MS (Biotechnology)	TAMU	Member	2016
Paris Reilley	MS (Medical Sci)	TAMU	Member	2021
Maral Molaie	PhD (Vet Micro)	TAMU	Member	2020
Devyn Schultz	MS (BIMS NTO)	TAMU	Member	2015
Saptha Vijayan	PhD (Medical Sci)	TAMU	Member	2019
Cameron Martin	MS (VTMI)	TAMU	Member	2016
Carolyn Arnold	PhD (BIMS)	TAMU	Member	2020
David Skutt	MS (BIMS NTO)	TAMU	**Advisor**	2015
Kirstie Harris	MS (BIMS NTO)	TAMU	Member	2016
Michelle Luster	MS (Biotechnology)	TAMU	**Co-Advisor**	2016
Jeannine Ott	PhD (Vet Path)	TAMU	**Advisor**	2020
Jamie Benn	PhD (BIMS)	TAMU	Member	2020
Hillary Shaheen	MS (BIMS NTO)	TAMU	Member	2016
Rita Pettinello	PhD (Biol Sci)	U Aberdeen (UK)	Member (oppon)	2017
Catherine LoCaste	MS (BIMS)	TAMU	Member	2016
Anne Peters	PhD (BIMS)	TAMU	**Advisor**	2022
Neha Sangewar	PhD (VTPB)	TAMU	Member	2019
Min Ju	PhD (WFSC)	TAMU	Member	2019
Daniel Hernandez	MS (BIMS NTO)	TAMU	Member	2019
Tejas Karhadkar	PhD (BIOL)	TAMU	Member	2020
Elena Moreno-Cordova	PhD (BIOC)	U Sonora (MEX)	Member	(2021)
Cameron Martin	PhD (BIMS)	TAMU	Member	2018 DNF
Min Gin Kim	PhD (Medical Sci)	TAMU	Member	2022
Katie Cerami	MS (BIMS NTO)	TAMU	**Advisor**	2018
Rana Eltahan	PhD (Medical Sci)	TAMU	Member	2018

Danielle Garza	MS (BIMS NTO)	TAMU	**Advisor**	2018
Fernando Yamamoto	PhD (WFSC)	TAMU	Member	2020
Kelsi West	PhD (GENE)	TAMU	Member	2020
Hanah Georges	MS (BIMS)	TAMU	Member	(2020)
Rolando Gomez	MS (BIMS NTO)	TAMU	**Advisor**	2018
Christina Brock	PhD (VTPB)	TAMU	Member	2017
Miranda Wilson	PhD (BIMS)	TAMU	Member	(2021)
Ammar Abdullah	PhD (Med Sci)	TAMU	Member	(2020)
Allison Jussel	MS (BIMS NTO)	TAMU	Member	2018
Michael Hsu	MS (BIMS NTO)	TAMU	Member	2019
Aileen Rowland	PhD (BIMS)	TAMU	Member	(2021)
Jaime Alegria	MS (BIMS NTO)	TAMU	**Advisor**	2019
Maria Melgar	MS (BIMS NTO)	TAMU	Member	2018
Daniel Heare	MS (BIMS)	TAMU	Member	2020
Michelle Gonzalez	MS (Biotechnology)	TAMU	Member	2019
Dana Delucchi	MS (BIMS NTO)	TAMU	Member	2018
Drew Pendleton	PhD (TOX)	TAMU	Member	(2021)
Ashley Zawicky	MS (BIMS NTO)	TAMU	Member	2019
Alisa Isaac	PhD (BIOM ENG)	TAMU	Member	(2021)
Cameron Martin	PhD (POSC)	TAMU	Member	(2021)
Brenda Samaniego	PhD (BIOC)	U Sonora (MEX)	Member	(2021)
Minal Jansandkar	PhD (BIMS)	TAMU	Member	(2022)
Troy Lobue	MS (BIMS NTO)	TAMU	**Advisor**	2020
Bethany Fehrenkamp	PhD (Immunology)	U of New Mexico	Member	2018
Kelly Head	MS (BIMS NTO)	TAMU	**Advisor**	2020
Alexander Golden	MS (BIMS NTO)	TAMU	**Advisor**	2019
Hanover Matz	PhD (MIIM)	U of MD	Member	22022
Carmen Lau	PhD (BIMS)	TAMU	Member	2022
Hannah Foshee	MS (BIMS NTO)	TAMU	**Advisor**	2020
Bolanle Akinola	MS (BIMS NTO)	TAMU	**Advisor**	2018
Madeline Patton	MS (STJR NTO)	TAMU	**Advisor**	2019
Dencil Ninan	MS (BIMS NTO)	TAMU	Member	2018
Cade Janke	MS (BIMS NTO)	TAMU	Member	2020
Holly Lacour	MS (BIMS NTO)	TAMU	Member	2019
Johanna Smith	PhD (BIMS)	TAMU	Member	2021
Christian Mitchell	MS (BIMS)	TAMU	**Advisor**	2021
Negar Yaryan	MS (WFSC)	TAMU	Member	2021
Louis Fowler	MS (BIMS)	TAMU	Member	2019 DNF
Sylvia Torres Odio	PhD (Medical Sci)	TAMU	Member	2021
Carlos Rodriguez	MS (VEPH)	TAMU	Member	(2022)
Ross Shore	PhD (TOX)	TAMU	Member	(2022)
Cassidy Mercier	MS (BIMS NTO)	TAMU	**Advisor**	(2021)

Shilpa Varrier	MS (BIMS NTO)	TAMU	**Advisor**	2021
Shawna Semple	PhD (BIOL)	U. of Waterloo	Member	2019
Koedi Lawley	PhD (BIMS)	TAMU	Member	(2022)
Ashley Marchand	MS (GENE NTO)	TAMU	**Advisor**	2021
Lauren Farris	PhD (Medical Sci)	TAMU	Member	(2023)
Christian Lynch	MS (BIMS NTO)	TAMU	Member	(2021)
ErinElise Wilson	MS (BIMS NTO)	TAMU	**Advisor**	(2021)
Sudarat Amornsenarak	MS (BIMS NTO)	TAMU	**Advisor**	2021
Brian Nguyen	MS (BIMS NTO)	TAMU	**Advisor**	2021
Sally Vo	MS (BIMS NTO)	TAMU	**Advisor**	2021
Tereza Almeida	PhD (Genetics)	U. de Porto (POR)	Member (oppon)	2021
Matthew Matsushita	MS (BIMS NTO)	TAMU	Member	(2021)
Alex Wu	MS (BIMS NTO)	TAMU	**Advisor**	(2022)
Anika Felix	MS (BIMS NTO)	TAMU	**Advisor**	2021
Fatima Sarwar	MS (BIMS NTO)	TAMU	**Advisor**	2021
David Oldeschulte	MS (BIMS NTO)	TAMU	**Advisor**	2022
Andy Wu	PhD (BIMS)	TAMU	Member	(2023)
Elizabeth Atteberry	MS (BIMS NTO)	TAMU	Member	(2021)
Rebecca Legere	PhD (BIMS)	TAMU	Member	(2024)
Wenliang He	PhD (ANSC)	TAMU	Member	(2024)
Chelsea Thorn	PhD (Biology)	TAMU	Member	(2026)

<u>Competitive support and awards won by trainees while under my mentorship</u>

2019	Kelly Head	CVM GSA Travel Award for AAI ($650)
2018	Jeannine Ott	1st Place Poster Biomedical Sciences Research Symposium ($1000)
2018	Jeannine Ott	2nd Place High Impact Publication Award ($100)
2018	Jeannine Ott	CVM Advanced Developmental Training Travel Award ($780)
2018	Bre Breaux	International Society for Developmental and Comparative Immunology Travel Award ($450)
2018	Jeannine Ott	CVM-GSA Travel Award ($1000)
2018	Bre Breaux	γδ T Cell Conference Travel Award ($1000)
2018	Jeannine Ott	Texas Genetics Society 1st Place Graduate Student Oral
2018	Bre Breaux	AAI Trainee Poster Award ($300)
2018	Bre Breaux	Spring 2018 CVM-GSA Travel Award ($1000)
2018	Thad Deiss	1st Place Flash Talk Biomedical Sciences Research Symposium ($1000)
2017	Bre Breaux	TAMU Student Research Week First Place Subject Area
2017	Jeannine Ott	NACIW First Place Student Oral Presentation
2017	Bre Breaux	NACIW Travel Award ($500)
2016	Bre Breaux	First Place TAMU Biomedical Sciences Student Research Symposium
2015	Jeannine Ott	CVM Merit Fellowship ($144,000)

2015	Stacie Seelye	CVM Advanced Developmental Training Travel Award ($1300)
2015	Thad Deiss	International Society for Developmental and Comparative Immunology Travel Award ($900)
2015	Bre Breaux	AAI Trainee Abstract Award $1000)
2015	Stacie Seelye	NACIW Travel Award ($100)
2014	Thad Deiss	NACIW Travel Award ($500)
2014	Bre Breaux	CVM Advanced Developmental Training Travel Award ($1100)
2014	Thad Deiss	CVM Advanced Developmental Training Travel Award ($2000)
2014	A. Heard-Ganir	AVMF/AVMA Research Award ($6000)
2014	Thad Deiss	John Paul Delapane Scholarship ($500)
2013	Matt Young	AAI High School Teacher's Program ($14,000)
2013	Thad Deiss	CVM Advanced Developmental Training Travel Award ($2000)
2013	Sara Mashoof	CVM High Impact Achievement Publication Award ($1000)
2013	Thad Deiss	CVM Merit Fellowship ($144,000)
2013	Natalie Jacobs	CVM BIMS Non-thesis MS Award (before switching to thesis, $200)
2012	Sara Mashoof	John Paul Delapane Scholarship ($700)
2012	Amy Romoser	ASF Distinguished Graduate Student for Research ($1000)
2011	Sara Mashoof	George Bush Presidential Library Foundation Grant ($500)
2011	Rachel Wright	Faculty Senate Aggie Spirit Award ($1000)
2011	Amy Romoser	Ethel Ashworth-Tsutsui Award for Research ($600)
2011	Rachel Wright	US Senator Phil Gramm Doctoral Fellowship ($5000)
2010	Rachel Wright	NIH National Graduate Student Research Festival ($1250)
2010	Rachel Wright	TAMU OGS Travel Grant ($500)
2010	Rachel Wright	Graduate Genetics Travel Grant ($400)

CURRENT POSITIONS OF PREVIOUS TRAINEES

Rachel Wright (PhD 2011) Lecturer Biology, Texas A&M University, College Station TX
Christina Du (MS 2011) Associate Veterinarian, Banfield, Hawthorne CA
Amy Romoser (PhD 2012) Toxicologist, NASA Johnson Space Center, Houston TX
Sara Mashoof (PhD 2014) postdoc with Huaizhu Wu, Baylor College of Medicine, Houston TX
Natalie Jacobs (MS 2014) Research Associate with Kim Schluns, Baylor College of Medicine, Houston TX
Stacie Seelye (MS 2016) Clinical Veterinarian, Charles River Laboratories, Reno NV
Breanna Breaux (PhD 2018) Clinical Trials Director, MedPace, Dallas TX
Thad Deiss (PhD 2019) Postdoctoral Fellow, Katju Lab, VIBS
Jeannine Ott (PhD 2020) Postdoctoral Fellow, CVMBS

VI. RESEARCH/SCHOLARLY ACTIVITIES:

My Comparative Immunogenetics Laboratory studies immunology and evolution. Most of our research focuses on the early natural history of the vertebrate adaptive immune system, with

particular attention given to the genetics of lymphocyte antigen receptors, mucosal immune mechanisms in the gut, antigen presentation and invertebrate innate immunogenomics. Our goals are bipartite, but related. Our first aim is to understand the evolution of our immune system: its genesis, subsequent natural history, and trajectory into the future. We pursue this using the comparative method focusing on evolutionarily strategic poikilothermic vertebrates (frog and shark) and economically important food species (e.g. shrimp, cattle and tuna). This work allows us to distinguish what aspects are phylogenetically fundamental in our own system and differentiate those that are merely accessory. Our second aim is to continue to discover and understand the many diverse tools less-studied organisms have evolved in their defensive batteries, which mouse and man often lack. These novel receptors, mechanisms, domains and tissue architectures will inform better vaccine development, biomedical engineering and clinical intervention **for the better health of all animals.** Details of my research and scholarly activities are detailed below.

BIBLIOGRAPHY: (chronologic order)

Publications (n=69): Google Scholar h-index = 30

AUTHORSHIP KEY: *Corresponding author* in italics. My colleagues in the Criscitiello Comparative Immunogenetics Laboratory are underlined and marked with superscripts as graduate students[1], undergraduates[2], technicians[3], post-docs[4], veterinary students[5], veterinary interns[6], high school students[7] and high school teachers[8].

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69. de Sá, A.L., P.K.B. Baker, B. Breaux[1], J.M. Oliveira, A.G.C.M. Klautau, K. Legatzki, F.O. Luna, F.L.N. Attademo, M.E. Hunter, **M.F. Criscitiello**, M.P.C. Schneider, *L. Sena*. "Novel insights on aquatic mammal MHC evolution: evidence from manatee *DQB* diversity." *Developmental and Comparative Immunology*, accepted March 2022.
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USPA No. 62/532,766 and No. 62/534,501. Co-inventor. "Rapid elicitation of broadly neutralizing antibodies to HIV Env." 2018.

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Criscitiello, M.F. 1997. "Characterization of β_2-microglobulin in the catfish family Ictaluridae." Thesis. Department of Biology, East Carolina University, Greenville, NC. Major advisor: Tom McConnell.

Criscitiello, M.F. 2003. "Polymorphism of T cell receptor α chain constant domains." Dissertation. Department of Microbiology and Immunology, University of Miami Miller School of Medicine, Miami, FL. Major advisor: Churchill McKinney.

Book chapters (3, all invited and peer reviewed):

Criscitiello, M.F. T cell receptors. In *Immunobiology of the Shark*. Editor Sylvia L. Smith. CRC Press, 2015.

Criscitiello, M.F. Immunoglobulin light chains. In *Immunobiology of the Shark*. Editor Sylvia L. Smith. CRC Press, 2015.

Vadnais, M.L., **M.F. Criscitiello** and V.V. Smider. Antibodies from other species. In *Protein Therapeutics*. Editor Tristan Vaughan. Wiley, 2017.

AUTHORSHIP KEY: *Corresponding author* in italics. My colleagues in the Criscitiello Comparative Immunogenetics Laboratory are underlined and marked with superscripts as graduate students[1], undergraduates[2], technicians[3], post-docs[4], veterinary students[5], veterinary interns[6], high school students[7] and high school teachers[8].

Abstracts published of other oral and poster presentations

Antao, A.B., M.R. Wilson, T.B. Stuge, U.B. Godwin, **M.F. Criscitiello**, T.J. McConnell, N.W. Miller, L.W. Clem and V.G. Chinchar. "Expression of MHC genes in the channel catfish." Developmental and Comparative Immunology **21**, 109, Williamsburg VA, 1997.

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Hogan, R.J., A.B. Antao, M.R. Wilson, N.W. Miller, L.W. Clem, U.B. Godwin, **M.F. Criscitiello**, T.J. McConnell, C. Goudie, G. Waldbeiser, W. Wolters and V.G. Chinchar. "Molecular and immunological characterization of gynogenetic channel catfish." Developmental and Comparative Immunology **21**, 103, Williamsburg VA, 1997.

Criscitiello M.F., S.M. Kamper, L. Rumfelt, M.F. Flajnik and E.C. McKinney. "Search for T cell receptor signaling apparatus in a primitive vertebrate." Mid Atlantic Society of Comparative and Developmental Immunology Conference, George Washington University, Washington D.C., 1999.

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Criscitiello M.F., M. Saltis and M.F. Flajnik. "An evolutionarily mobile antigen receptor variable region gene: doubly rearranging NAR-TCR genes in sharks." γδ T Cell Conference, Salk Institute, La Jolla CA, 2006.

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Romoser[1] A., **M.F. Criscitiello** and C. Sayes. "Modulation of the NF-κB Pathway After Exposure to Nanoparticles in an *In Vitro* Dermal Model." Gulf Coast Chapter Society of Toxicology Annual Meeting, Houston TX, 2010.

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Wei, Y, C. Meng, S. Mashoof[1], G. Zhuang, P.S. Cheruku, L. Shi, F.W. Bazer, G. Wu, S. Safe, **M.F. Criscitiello**, B. Zhou. "A novel paradigm of microRNA regulated B cell functions on insulin resistance: miR-150 regulates insulin sensitivity through controlling antibody production." American Heart Association Annual Meeting, Los Angeles CA, 2012.

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Mashoof, S.[1],C.Pohlenz, P.L. Chen[3], D. Gatlin, A. Buentello, **M.F. Criscitiello**. "Expressed IgM and IgZ/T transcripts in ranched *Thunnus orientalis*." Eastern Fish Health Workshop, Gettysburg PA, 2013.

Heard A.[5] and **M.F. Criscitiello**. "Somatic hypermutation for primary α T cell receptor repertoire in elephant shark (*Callorhinchus milli*)." Merial-NIH National Veterinary Scholars Symposium, East Lansing MI, 2013.

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M.S. Young[8] and **M.F. Criscitiello**. "Investigating the immune response of *D. Rerio* using keyhole limpet hemocyanin." American Association of Immunology Annual Meeting, Pittsburgh PA, 2014.

Heard A.[5] and **M.F. Criscitiello**. "A novel analysis of MHC Class I and II genes of the Amazonian manatee *Trichechus inunguis*." Merial-NIH National Veterinary Scholars Symposium, Ithaca NY, 2014.

Deiss, T.C.[1], **M.F. Criscitiello**. "Immunogenetics of ultralong cattlebodies." North American Comparative Immunology Workshop, Albuquerque NM, 2014.

Seelye, S.L.[1], **M.F. Criscitiello**. "The zebrafish T cell receptor alpha/delta locus and analysis of TCR delta expression." Eastern Fish Health Workshop, Charleston SC, 2015.

Breaux, B.[1], A. Heard-Ganir[5], L. Sena, M. Hunter, R. Bonde and **M.F. Criscitiello**. "Understanding

manatee immunogenetics and the implications for conservation." American Association of Immunology Annual Meeting, New Orleans LA, 2015.

Duckworth, E.E.M.[6], P.L. Chen[3], F.M.D. Gulland, **M.F. Criscitiello**. "Characterization of the MHC Class I genes and alleles of the California sea lion (*Zalophus californianus*) in relation to incidence of sea lion urogenital carcinoma." American Association of Immunology Annual Meeting, New Orleans LA, 2015.

Seelye, S.L.[1], **M.F. Criscitiello**. "Genomic organization of the zebrafish T cell receptor alpha/delta locus and analysis of expressed products." North American Comparative Immunology Workshop, Toronto Canada, 2015.

McCauley, N.L.[7] and **M.F. Criscitiello**. "Investigating distinct immunization routes in zebrafish on mucosal immunity." American Association of Immunology Annual Meeting, New Orleans LA, 2015.

Deiss, T.C.[1], P.L. Chen[3], J. Ott[1], Y. Ohta, M.F. Flajnik and **M.F. Criscitiello**. "Evidence of Ig gene segments in the TCR alpha/delta locus at the dawn of adaptive immunity in *Ginglymostoma cirratum*." 13th Congress of the International Society of Developmental and Comparative Immunology, Murcia Spain, 2015.

R. R. Sotelo-Mundo, **M.F. Criscitiello**, S.V. Dindot, A. Ochoa-Leyva, A.A. López-Zavala and N. Ghaffari. "Perspectives of next-generation sequencing (NGS) technologies on shrimp aquaculture." World Aquaculture Conference, Fortaleza Brazil, 2015.

Castro, C.D., M. Coomes, Y. Ohta, **M.F. Criscitiello**, M.F. Flajnik and E.J. Adams. "Examining the structure of terminal, antibody-like V domains of shark NARTCR receptors." American Association of Immunology Annual Meeting, Seattle WA, 2016.

Breaux, B.[1], T. C. Deiss[1], P. L. Chen[3], M. P. Cruz-Schneider, L. Sena, M. E. Hunter, R. K. Bonde, **M. F. Criscitiello**. "The Florida manatee (*Trichechus manatus latirostris*) immunoglobulin heavy chain suggests the importance of clan III variable segments in repertoire diversity." Texas Regional Immunology Conference, Houston TX, 2016.

Deiss, T.C. [1], P. L. Chen[3], W. Mwangi, V.V. Smider and **M.F. Criscitiello**. "Deep sequencing of *Bos taurus* immunoglobulin heavy chain repertoire." North American Comparative Immunology Workshop, Raleigh NC, 2017.

Ott, J.A.[1], C. Doremus, A.B. Wallace, Y. Ohta, M.F. Flajnik and **M.F. Criscitiello**. "Somatic hypermutation for primary αβ T cell repertoire generation in nurse shark." North American Comparative Immunology Workshop, Raleigh NC, 2017.

Breaux, B.[1], T. C. Deiss[1], P. L. Chen[3], M. P. Cruz-Schneider, L. Sena, M. E. Hunter, R. K. Bonde, **M. F. Criscitiello**. "Manatee immunogenetics: genomic organization and expression of the immunoglobulin heavy chain locus." North American Comparative Immunology Workshop, Raleigh NC, 2017.

Breaux, B.[1], T. C. Deiss[1], P. L. Chen[3], M. P. Cruz-Schneider, L. Sena, M. E. Hunter, R. K. Bonde, **M. F. Criscitiello**. "The Florida manatee (*Trichechus manatus latirostris*) T cell receptor loci exhibit V segment locus synteny and chain-specific evolution." American Association of Immunology Annual Meeting, Austin TX, 2018.

Ott, J.A.[1], C.D. Castro, T.C. Deiss[1], Y. Ohta, M.F. Flajnik and **M.F. Criscitiello**. "Somatic hypermutation of TCRα contributes to thymic positive selection in sharks." American

Association of Immunology Annual Meeting, Austin TX, 2018.

Ott, J.A.[1], C.D. Castro, T.C. Deiss[1], Y. Ohta, M.F. Flajnik and **M.F. Criscitiello**. "Somatic hypermutation of TCRα contributes to thymic positive selection in sharks." American Association of Immunology Annual Meeting, San Diego CA, 2019.

Head, K.[1], K.S. Kobayashi and **M.F. Criscitiello**. "Demonstration of TLR response in *O. mykiss* by bacterial 23S rRNA motif." American Association of Immunology Annual Meeting, San Diego CA, 2018.

KEY: *Presenting author* in italics. My colleagues in the Criscitiello Comparative Immunogenetics Laboratory are underlined and marked with superscripts as graduate students[1], undergraduates[2], technicians[3], post-docs[4], veterinary students[5], veterinary interns[6], high school students[7] and high school teachers[8].

EXTERNAL PRESENTATIONS, SYMPOSIA, COLLOQUIA AND NAMED LECTURES:

National

1997; "Glycosylation signal sequence for β_2-microglobulin in the channel catfish, *Ictalurus punctatus*." Congress of International Society of Developmental and Comparative Immunology, Williamsburg VA

1999; "Search for T cell receptor signaling apparatus in a primitive vertebrate." Mid Atlantic Society of Comparative and Developmental Immunology Conference, George Washington University, Washington D.C

2000; "Evolution of polymorphic T cell receptor β 'constant' domain genes." Comparative Immunology Minisymposium, Florida International University, Miami FL

2002; "Evolution of polymorphic T cell receptor constant domain genes." Comparative Immunology Symposium, Florida International University, Miami FL

2002; "Evolution of polymorphic T cell receptor constant domain genes." Immunology 2002 (American Association of Immunologist Annual Meeting), New Orleans LA

2002; "Evolution of polymorphic T cell receptor constant domain genes." University of Mississippi Medical Center, Jackson MS

2003; "Evolution of polymorphic T cell receptor constant domain genes." Comparative Immunology Symposium, Florida International University, Miami FL

2005; "An evolutionarily mobile antigen receptor variable region gene: doubly rearranging NAR-TcR genes in sharks." FASEB/ American Association of Immunologist Annual Meeting, San Diego, CA

2005; "An evolutionarily mobile antigen receptor variable region gene: doubly rearranging NAR-TcR genes in sharks." University of Maryland, Baltimore, MD

2006; "Genomic plasticity at the shark TcR delta locus." Congress of International Society of Developmental and Comparative Immunology, Charleston, SC

2006; "New shark Ig light chain reveals lambda and kappa to be two of four ancestral isotype

radiations." Congress of International Society of Developmental and Comparative Immunology, Charleston, SC

2006; "An evolutionarily mobile antigen receptor variable region gene: doubly rearranging NAR-TCR genes in sharks." College of William and Mary, Williamsburg, VA

2007; "Sharks and the evolution of antigen receptors." Department of Pathobiology, Louisiana State University, Baton Rouge, LA

2007; "Sharks and the evolution of antigen receptors." Harvard Digestive Disease Center, Harvard Medical School, Boston, MA

2007; "Sharks and the evolution of antigen receptors." Department of Biology, New Mexico State University, Las Cruces, NM

2007; "Sharks and the evolution of antigen receptors." Department of Biology, University of Louisiana, Lafayette, LA

2007; "Sharks and the evolution of antigen receptors." Department of Microbiology and Immunology, University of Illinois-Chicago, Chicago, IL

2007; "Sharks and the evolution of antigen receptors." Department of Biomedical Sciences, Mercer University School of Medicine, Savannah, GA

2007; "Sharks and the evolution of antigen receptors." Department of Pathology, Case Western Reserve University, Cleveland, OH

2007; "Sharks and the evolution of antigen receptors." Department of Animal Sciences, University of Delaware, Newark DE

2009; "Evolution of the MHC Class II Associated Invariant Chain" FIU Comparative Immunology and Biomedical Research Symposium, Miami FL

2009; "Evolution of the MHC Class II Associated Invariant Chain" Cold Spring Harbor Laboratories Symposium: Evolution, Cold Spring Harbor NY

2010; "Evidence for somatic hypermutation at shark T cell receptor alpha locus", Immunology 2010 (American Association of Immunology Annual Meeting), Baltimore MD

2012; "Somatic Hypermutation for primary αβ T cell repertoire generation in shark." North American Comparative Immunology Workshop, Rochester NY

2013; "B cell immunogenetics in the T cell receptor repertoire generation of shark." American Association of Immunology 100th Meeting, Honolulu HI

2013; "B cell immunogenetics in the T cell receptor repertoire generation of shark." North American Comparative Immunology Workshop, Santa Barbara CA

2013; "Overview of work in the Comparative Immunogenetics Lab." Rollins-Smith Laboratory. Department of Microbiology and Immunology, Vanderbilt University Medical Center, Nashville TN

2014; "Shark immunoglobulin-T cell receptor trans-rearrangements." American Association of Immunology Annual Meeting, Pittsburgh PA

2014; "Immunoglobulin heavy and light chain isotype pairing – does it matter?" Center for Evolutionary and Theoretical Immunology, Albuquerque NM

2015; "B cell immunogenetics in shark T cell receptors." Department of Molecular Biomedical Sciences, North Carolina State University, Raleigh NC

2016; "Environmental immunology – shark lymphocyte antigen receptors." Department of

Environmental Sciences, Baylor University, Waco TX
2017; “B cell immunogenetics in shark T cell receptors.” Department of Marine Biological Sciences, Texas A&M University – Galveston, Galveston TX
2018; "Immunogenetic tricks of diverse vertebrates." Department of Biology, University of Central Florida, Orlando FL
2019; "Immunogenetic tricks of diverse vertebrates." Department of Marine Biology, Rosensteil School of Marine and Atmospheric Sciences, University of Miami, Miami FL

International

2000; “Evolution of polymorphic T cell receptor β ‘constant’ domain genes in damselfish.” Congress of International Society of Developmental and Comparative Immunology, Cairns Australia
2003; “Polymorphism of TCR constant domain genes in teleost fish.” Congress of International Society of Developmental and Comparative Immunology, St. Andrews Scotland
2007; “New shark Ig light chain reveals lambda and kappa to be two of four ancestral isotype radiations.” International Immunology, Rio de Janeiro Brazil
2009; “Evolution of the MHC class II associated invariant chain.” Congress of the International Society of Developmental and Comparative Immunology, Prague Czech Republic
2011; “Sharks and the evolution of antigen receptors.” Symposium of Aquatic Immunology and Pathology, Hermosillo Mexico
2012; “Somatic Hypermutation for primary αβ T cell repertoire generation in shark.” Congress of the International Society of Developmental and Comparative Immunology, Fukuoka Japan
2013; “Shrimp immunogenomics.” INAPESCA progress meeting, Mexico City, Mexico
2014; “Sharks and the evolution of antigen receptors.” Department of Genetics, Federal University of Para, Belem Brazil
2015; “B cell immunogenetics in shark T cell receptors.” Department of Biomedical Sciences, Chang Gung University, Taipei Taiwan
2015; “Somatic Hypermutation for primary αβ T cell repertoire generation in shark.” Congress of the International Society of Developmental and Comparative Immunology, Murcia Spain
2015; “Workshop: Immunogenetics of diverse antigen receptor protein structure.” University of Sonora, Hermosillo Mexico
2015; “Why maintain immunoglobulin light chain isotypes? Factors influencing light chain isotypes in *Xenopus laevis*.” O Instituto de Ciências Biológicas, Belem Brasil
2016; “B cell immunogenetics in shark T cell receptors.” North American Comparative Immunology Workshop, Charlottetown, Prince Edward Island Canada.
2016; “B cell immunogenetics in shark T cell receptors.” Immunology Conference and Expo, Dubai United Arab Emirates
2017; “B cell immunogenetics in shark T cell receptors.” World Immune Regulation Meeting, Davos Switzerland
2018; "Immunogenetic tricks of diverse vertebrates." International Congress of Genetics, Foz do Iguaçu Brazil

2018; "Adaptive immunity and immunogenetics workshop." Federal University of Para, Belem Brazil
2018; "Immunogenetic tricks of diverse vertebrates." Inaugural Congress of the Asian Society of Developmental and Comparative Immunology, Dalian China
2018; "Immunogenetic tricks of diverse vertebrates." Frontiers in Human and Veterinary Antibody Discovery, Pirbright Institute, Pirbright United Kingdom
2019; "Immunogenetic tricks of diverse vertebrates." North American Comparative Immunology Workshop, Waterloo Canada.
2019; "Complexity and plasticity in shark thymocyte development." EMBO Thymus Workshop. Weizmann Institute, Rehovot Israel
2019; "Immunogenetic tricks of diverse vertebrates." Festival Biologics, European Antibody Conference, Basel Switzerland

OTHER EVIDENCE OF SCHOLARLY RECOGNITION:

Editorial Boards

2012-2015; *Experimental Biology and Medicine*
2014-present; *Immunogenetics*
2015-2017; *Scientific Reports*
2018-2019; *Frontiers in Immunology* Co-editor special topic "Comparative immunology of marine mammals"

Review work

Manuscript peer review (last five years)

BMC Evolutionary Biology
BMC Immunology
Cell and Molecular Immunology
Developmental and Comparative Immunology
European Journal of Immunology
Fish and Shellfish Immunology
Frontiers in Immunology
Frontiers in Innate Molecular Immunology
Immunogenetics
Journal of Fish Biology
Journal of Immunology
mAbs
Molecular Biology and Evolution
Molecular Immunology
Nature Immunology

PLoS
PLoS One
PLoS Pathogens
Proceedings of the National Academy of Sciences USA (PNAS)
Science
Science Immunology

Proposal peer review

2008-present ad-hoc reviewer; National Science Foundation (Genes and Genome Systems, Symbiosis Defense and Self Recognition)
2009; Florida international University Access to Biomedical Research, Faculty Research Enhancement Awards (FREA)
2011; Czech Science Foundation ad hoc review, Immunology and Microbiology
2012; Texas CPRIT Incentive Grant Program
2013; panelist, National Science Foundation, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Preproposal Section
2013; reviewer, TAMU/CONACYT Collaborative Research Program
2012-2016; NIH Early Career Reviewer Program
2013; panelist, National Science Foundation, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Full Proposal Section
2014-present; Qatari National Priority Research Program
2014; panelist, National Science Foundation, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Preproposal Section
2014; panelist, USDA Aquaculture Genome NRSP8 Program Section
2014; panelist, International Life Sciences Research Announcement (NASA and equivalent European, Japanese and Canadian spaceflight agencies)
2016; reviewer, Western Regional Aquaculture Center
2017; panelist, National Science Foundation, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Preproposal Section
2017; panelist, National Science Foundation, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Full Proposal Section
2018; Canadian NSERC Discovery Grants
2018; Czech Science Foundation
2018; NSF CAREER Award ad hoc review
2018; NSF Excellence in Research (EiR) Historically Black Colleges and Universities Program review
2019; NSF CAREER Award ad hoc review
2019; NSF d hoc review, Integrative Organismal Systems Cluster - Symbiosis, Defense and Self-Recognition Preproposal Section

Sessions Chaired at National/International Meetings:

2009; "Immunoglobulin Genetics" 11th Congress of the International Society of Developmental and Comparative Immunology, Prague, Czech Republic
2012; "T Cell, MHC and Antigen Presentation" 12th Congress of the International Society of Developmental and Comparative Immunology, Fukuoka, Japan
2013; "Veterinary Immunology" Annual Meeting of the American Association of Immunologists, Honolulu HI
2014; "Comparative and Veterinary Immunology" Annual Meeting of the American Association of Immunologists, Pittsburgh PA
2015; "T cells: receptors and effector mechanisms." 13th Congress of the International Society of Developmental and Comparative Immunology, Murcia Spain
2017; "Future of immune –omics in comparative model systems – current trends and challenges." North American Comparative Immunology Workshop, Raleigh NC
2018; "Comparative and Veterinary Immunology" Annual Meeting of the American Association of Immunologists, Austin TX
2018; "T cells and T cell receptors." 14th Congress of the International Society of Developmental and Comparative Immunology, Santa Fe NM
2018; Commission and inauguration of the ASDCI on behalf of the ISDCI Executive Committee, Dalian China
2018; "Cattlebody immunogenetics." Bovine Immunology Satellite Workshop, London England
2019; "Deuterostome immune innovations from echinoderms to mammals." International Society of Developmental and Comparative Immunology Guest Symposium at the Annual Meeting of the American Association of Immunologists, San Diego CA

VII. RESEARCH FUNDING:

CURRENT FUNDING (excluding indirect costs)						
Years	**Type**	**Sponsor**	**Role**	**Title**	**Total Award**	**To Me**
2021-2024	Federal Competitive	USDA-NIFA	Co-PI	Impact of dietary glutamate on the development of gut mucosal immunity in hybrid striped bass	$350,000	$175,000
2019-2021	Federal Competitive	NIH NIAMSD R21 AR074635	Co-PI	Impact of the Anti-PEG Response on the Efficacy of PEG Hydrogel-Mediated Bone Regeneration	$353,690	$21,138

2020-2021	Federal Competitive	NSF DBI – 2029949	Co-PI	COVID-19: RAPID: Large-scale functional analysis of Ab repertoires elicited by SARS-CoV-2	$200,000	$50,000
2019-2024	Federal Competitive	NIH NIAID R01 AI141607	Co-I	Development of a high-throughput-microfluidics-enabled functional assay for rapidly identifying neutralizing antibodies	$3,435,689	$61,918
2020-2021	Federal Competitive	NIH - NIAID	Co-PI	Accelerating the discovery of neutralizing paratopes with antibody screening technology	$415,125	$23,299
2018-2021	Internal Awarded	TAMU	PI	Presidential Impact Fellowship	$75,000	$75,000
2018-2020	Federal Competitive	NIH-NIAID R21 AI 140178	Co-PI	Evaluation of novel INF-epsilon across human pregnancy	$275,000	$28,236
2018-2022	Federal Competitive	NIH-USDA R01 HD 088400	Subaward PI	Defining clinically relevant viral epitopes with cow antibodies	$1,897,954	$96,572
2017-2020	Federal Competitive	NSF IOS 1656870	PI	Evolution of diversification mechanisms for lymphocyte antigen receptors	$739,346	$739,346
2019-2021	Internal Competitive	TAMU	Co-PI	Evolutionary population genomics of host defense and parasite counter-defense	$30,000	$10,000

PREVIOUS FUNDING (including indirect costs)						
Years	**Type**	**Sponsor**	**Role**	**Title**	**Total Award**	**To Me**
2018-2020	Internal Competitive	TAMU	Co-PI	Genomic tools for conservation of endangered species: the manatee immunome	$30,000	$10,000
2016-2018	Federal Competitive	NIH-NIAID R21 AI 120791	Subaward PI	Cow ultralong CDR3 antibodies targeting HIV gp120	$525,339	$91,671
2018	Federal Competitive	NSF IOS 1656870	PI	Meeting Award: Trainee travel to 14th ISDCI Congress Santa Fe	$14,550	$14,550
2016-2018	Federal Competitive	USDA FAH	PI	Bovine humoral immune response utilizing ultralong CDR3 antibodies	$59,079	$59,079
2015-2017	Internal/ International Competitive	CONACYT/ TAMU	Co-PD	Immunogenetic assessment of the critically endangered totoaba fish to enhance survival and repopulation after hatchery rearing	$24,000	$18,000

2013-2016	Federal Competitive	NSF IOS 1257829	PI	Evolution of loci critical in antigen recognition	$655,000	$655,000
2014-2016	Internal/ International Competitive	CAPES/ TAMU 2014-028	PI	Amazonian and West Indian manatee immunogenetics	$49,950 (to TAMU)	$49,950
2013	Internal Federal Competitive	USDA FAH	PI	Shrimp Immunogenomics	$19,690	$9,845
2011-2012	Internal/ International Competitive	CONACYT/ TAMU (246889)	Co-PD	Genomic and immunogenetic tools for enhancing shrimp disease resistance	$24,000	$9,000
2011-2012	Internal Competitive	Montague/ CTE	PI	Enrichment of VTPB415 Immunogenetics and Comparative Immunology and its instructor	$6,500	$6500
2008-2011	Federal Competitive	NIH-NIAID K22 AI 56963	PI	Origins of specialized mucosal lymphocyte subsets and immunoglobulin isotypes	$270,000	$270,000
2010-2011	Internal Competitive	CVM Student Awards	Mentor	Origins of T helper cell function in adaptive immunity (Du PI)	$5,000	$5,000
2010-2011	Internal Competitive	CVM Student Awards	Mentor	IgX, IgA and immunoglobulin class switch recombination (Mashoof PI)	$5,000	$5,000

2004-2007	Federal Competitive	NIH-NIAID F32 AI 56593	PI	Origins of T helper cell function in adaptive immunity	$130,972	$130,972

VIII. SERVICE ACTIVITIES:

While research and teaching best characterize the bulk of my efforts at Texas A&M, I am deeply committed to the service work necessary for the effective operations of the Department of Veterinary Pathobiology, the College of Veterinary Medicine and Biomedical Sciences, Texas A&M University, and the A&M System. Moreover, I am active in promoting immunology, genetics, and comparative medicine education research in groups as diverse as the International Society of Developmental and Comparative Immunology to the local classrooms of A&M Consolidated High School and Pebble Creek Elementary School. My leadership roles in research and graduate studies have progressively grown as evidenced by my being asked to serve first as associate department head in VTPB and then assistant dean in the college for research and graduate studies. In these roles, I spend significant time meeting with students, faculty and staff to solve problems and restore productive research and training environments and relationships.

Committee and Other Service Work:

Departmental:

2008 - 2017; Graduate Advisory Committee (chaired 2015-2017)
2010 - 2012; organize monthly research meetings amongst cell/pathology/molbiol investigators
2010; VTPB Graduate Academic Program Review Committee
2010; VTPB Graduate Academic Program Review Subcommittee – Lab Rotations
2010; VTPB Graduate Academic Program Review Subcommittee – Goals and Expectations (Chaired)
2011; Neotropical Psitticine Ecologist Search Committee (Brightsmith hired)
2012 - 2014; manage VMR Autoclave and Dishwashing Facilities
2013; VTPB Graduate Coordinator Search Committee (chaired, Holmes hired)
2013; VTPB Website Revamp Committee
2013; Parasitologist Search Committee (Mulenga, Dangoudoubiyam hired)
2014 – present; Mentor Committee for Artem Rogovskyy
2015 – 2017; Associate Department Head for Research and Graduate Studies
2018 – present; VTPB Awards Committee
2019 – present; Mentor Committee for Sargurunathan Subashchandrabose
2020; VTPB P&T Sub-Committee for Post Tenure review of Tenured Faculty (chair)

College:

2008; interview applicants for DVM program
2009 - 2010; VTPB Department Head Search Committee (elected by VTPB faculty, Logan hired)
2010 - present; CVM mentor for Undergraduate Research Scholars Program
2011; review CVM Trainee Grant proposals
2011 - 2015; CVM IT Services Advisory Committee
2011 - present; CVM BIMS Non-thesis MS Steering Committee (chair 2018-present)
2012 - present; CVM Graduate Instruction Committee
2012 – present; CVM Advanced Developmental Training Grant review panel
2014; Veterinary Physiologist Faculty Search Committee (Ramadoss hired)
2015 - 2018; BIMS Graduate Program Review Task Force
2016; VTPP Post-tenure Review Committee Dr. Yanan Tian
2017 - 2019; graduate BIMS track leader Infection, Immunity and Epidemiology
2017; review CVMGSA Symposium abstracts for oral selection
2017; judge CVMGSA Symposium oral presentations
2018 - present; CVMBS Research Advisory Council *ex officio*
2019 - present; Mentor Committee for Angela Bordin
2019 - present; Mentor Committee for Martial Ndeffo
2019-2020; CVMBS Strategic Planning Committee
2020; Search Committee, LACS Director Vet Med Park
2020-2021; Outstanding Alumni & Rising Star Selection Committee

University:

2009; participant in discussions for Whole Systems Genomics Institute (Riggs)
2009 - 2010; organized weekly Immunology Journal Club (w/ Jane Welsh)
2011; judge Genetics IDP posters
2011-present; Executive Committee of Professional Program in Biotechnology
2012; IDEA system evaluator
2012 - present; TAMU Immunology Consortium Executive Committee (Co-Founder)
2013; evaluator of Howdy Committee Chair Degree Evaluation System pilot
2013 - 2016; Institutional Review Board (full member)
2016 - 2020; Recruiting Committee – Interdisciplinary Faculty of Genetics
2016; judge flash talks for inaugural TAMU Post-doc Symposium
2017 - 2018; reviewer TAMU Merit Fellowship
2017 - 2018; Comparative Medicine Program Advisory Panel
2017; judge COM Summer Research Program poster presentations
2017 - present; reviewer TAMU Diversity Fellowship
2017 - present; Graduate Council
2018; judge Medical Sciences trainee poster and oral presentations
2019; Graduate Student AFS Distinguished Award panel
2019; Faculty Conflict Mediation for Dean of Faculty
2019- present; Provost's Cyber Security Working Group
2020; Presidential Clinical Research Partnership Review Panel

2021-present; Executive Advisory Committee for Core Facilities
2021-present; Center for the Integration of Research, Teaching and Learning Steering Committee
2021-present; Agrilife Research Ad Hoc Committee on Gene Editing

OTHER SCHOLARLY ACTIVITY:

1997-present International Society of Developmental and Comparative Immunology
2015-2021 Vice President (Americas)
2001-present American Association of Immunology
2018-present; Director, Summer Research Program for High School Teachers
2009 Texas Genetics Society
2010 Sigma Xi
2011-present International Society of Fish and Shellfish Immunology
2012-present Society of Experimental Biology and Medicine
2014-2016 Outreach Committee
2012-present; International Society of Mucosal Immunology
2013-2015 organize monthly seminar series of the Texas A&M Immunology Consortium
2016 poster judge, Regional Immunology Conference, M.D. Anderson Cancer Center, Houston TX
2017 Organizing Committee, North American Comparative Immunology Workshop
2018-present; America Association for the Advancement of Science
2018-2021; External Organizing Committee 17th Congress of the ISDCI (Dalian China)
2020-2023; IUIS Nomenclature Committee/Subcommittee Chair for immunoglobulins, T cell receptors and major histocompatibility complex(IMGT-NC)