The University System of Georgia
FORMAT FOR NEW PROGRAM PROPOSAL

For assistance in developing a proposal, contact the Office of Curriculum Systems at 542-6358.

Institution The University of Georgia Date October 22, 2007

School/College/Division/Institute College of Veterinary Medicine

Department Department of Population Health

Name of Proposed Program Master of Avian Health and Medicine

Degree MAHMP Major Avian Health and Medicine CIP Code

Starting Date

Contact: Dr. Charles L. Hofacre, Dept. of Population Health, 706-542-1904, chofacre@uga.edu

Signature **Department Head**



Population Health

Program Directors

Population Health

College Deans

Veterinary Medicine

Dean of the Graduate School

Vice-President for Research

Vice-President for Instruction

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Proposal for New Program of Study – Master of Avian Health and Medicine

Department of Population Health
College of Veterinary Medicine
The University of Georgia

1. Program Description

This proposal seeks approval to establish the Master of Avian Health and Medicine (MAHM) at the University of Georgia; this program will be co-administered by the Department of Population Health in the College of Veterinary Medicine and the Faculty of Veterinary Science, University of Melbourne, Australia.

The mission of this program is to provide an educational opportunity for a larger number of veterinarians to specialize in poultry (chicken and turkey) health than would be available at either the University of Georgia or the University of Melbourne. The University of Georgia is already the national leader in educating veterinarians in poultry health and medicine and this program in cooperation with the University of Melbourne would afford the University of Georgia the opportunity to become a preeminent leader in poultry health internationally. The students matriculating in the program will be educated by online lectures, assigned readings, online discussions, preparation of assignments for assessment and feedback by Tutors, and the completing of online quizzes and examinations from a multidisciplinary group of faculty from both universities.

Poultry meat (chicken and turkey) is the largest meat group eaten by U.S. consumers (>100 pounds/person/year). Internationally, this upward trend is following the U.S. with an ever increasing demand for chicken meat in Asia (especially China), South America and Eastern Europe. Veterinarians play a key role in the modern poultry industry, through being centrally involved in poultry health and the health-associated interactions with housing, nutrition, breeding and also animal welfare and environmental issues. In addition, the veterinarian is a key professional in ensuring that the poultry meat available to consumers is safe for human consumption from both microbial and chemical residue standpoints. Poultry production is the largest agricultural commodity for Georgia, and the mission of the University of Georgia as a land-grant institution is to provide education and technical support to not only the agricultural industry of the State of Georgia but also the U.S. This program is therefore consistent with the mission and purpose of the University of Georgia and its graduate school.

The U.S. poultry industry is the most sophisticated and technologically advanced animal agriculture husbandry system in the world. This is evidenced by a total of only 5 companies currently producing some 22 billion pounds of chicken meat per year, accounting for nearly 60 of the 100 pounds being eaten by every man, woman and child in the U.S. These 5 companies employ 20 veterinarians and rely on another 500 veterinarians through support in state and federal diagnostic laboratories as well as pharmaceutical industry technical support veterinarians. It has taken approximately 50 years for the U.S. industry to evolve into this highly efficient system to provide a very high-quality, safe, affordable animal protein for the Consumer. Now the rest of the world is emulating this system, especially in South America and Asia. As stated in Dr. John Smith's letter (Director of Health, Fieldale Farms and Chair of the U.S. Animal Health Transmissible Diseases of Poultry) in Appendix 4, there is a predicted shortage of food animal veterinarians in the U.S. and as

the food supply of poultry meat becomes more global, it becomes an even greater challenge to educate enough veterinarians to ensure a healthy and safe supply of poultry meat and eggs.

For post Doctorate of Veterinary Medicine (DVM) in poultry health and medicine training, only three veterinary schools are known to offer a full-time on-campus program. These are North Carolina State University and the University of Georgia in the U.S. and the University of Melbourne in Australia. With more than 104 graduates since 1971, the University of Georgia's Master of Avian Medicine (MAM) has long been regarded nationally as the preeminent postgraduate professional degree for poultry veterinarians. The MAM degree involves learning not only in lectures and laboratories, but more importantly in the hatcheries, processing plants and farms of the poultry industry in the State of Georgia.

The MAM degree course is an 18-month, non-thesis Master's Program that is conferred after the student successfully completes the courses and a final oral exam. The students have courses in poultry virology, histopathology, disease-husbandry interaction, poultry diseases, bacteriology, poultry nutrition, pharmacology and toxicology. In addition, they must complete at least one applied research project, write two scientific papers and present this work at the annual meetings of the Georgia Veterinary Medical Association and the American Veterinary Medical Association. Additionally, they spend time every day performing poultry necropsies and gaining from on-farm experiences. Why not bring the many more students who desire this advanced professional training in avian health to the University of Georgia? As the world's poultry production grows, the supply of poultry meat and eggs will be from many countries in Asia and South America. The health of these birds and the wholesomeness of the poultry meat and eggs is dependent upon the veterinarians in their countries. These veterinarians will be more successful if their specialty training is applied daily in their countries' climate and bird husbandry systems. Additionally, our hands-on farm, processing plant, etc., MAM experience cannot handle the potential number of students. No farmers would want a bus load of people on their farms when they have sick animals. Also, the online format will allow the students to remain in their present places of employment whereas an on-campus experience would not. Since it is not possible to give these hands-on experiences online, the MAHM program will not replace the MAM but will be a stand-alone program that will emulate the MAM program as much as possible using online delivery, while capitalizing on and enriching the students' experiences and learning in their workplaces within the numerous countries where intensive poultry production is now being practiced. We will work with known established poultry veterinarians in each country to enable each student to have a mentor in his or her country to obtain additional experiences that cannot be obtained by the online experience.

The University of Melbourne has many programs delivered in an online format and also has developed a proprietary online software (Quokka) that is very successful in delivering these programs. In addition, a collaboration with the University of Melbourne would allow for this program to be developed more quickly and is likely to have a higher level of education excellence and teaching quality than could be achieved by either institution operating alone. As stated by Dr. Pat Wakenell, President of The American Association of Avian Pathologists, Appendix 4, "the international strength of the University of Melbourne's participation should make your new program a 'gold standard' for poultry medicine training." Further, the financial commitments required by each collaborating institution will be lessened, while the ability to pool resources of academic staff from both universities for the delivery, tutoring and assessment functions is also an attractive aspect in presenting this as a joint degree between the University of Georgia and the University of Melbourne.

Independent analysis by both the University of Georgia and the University of Melbourne would indicate there are at least 1000 avian veterinarians worldwide who, over the next 10 years, would wish to undertake this Masters course. The faculty of the University of Melbourne and the Department of Population Health at the University of Georgia informally interviewed poultry veterinarians in Europe, Asia, Central and South America. It was very clear from these highly regarded individuals that the demand for an online degree in poultry health is very great. Additionally, the market acceptance of a joint degree was judged to be excellent, with the University of Melbourne highly regarded in Asia and Africa, and the University of Georgia being most highly regarded in North and South America and the Caribbean.

Admissions requirements for students in the program will be the same standards set by the University of Georgia and University of Melbourne graduate schools. Specifically, the students will be required to have the same English fluency skills as would be required for on-campus enrollment at the University of Georgia. The students will also be required to have a minimum combined verbal and quantitative GRE score of 1000.

A detailed plan for student recruitment has been developed jointly by the faculty at both institutions. This will involve advertisements in professional journals, poultry industry trade publications and in poultry veterinary meetings nationally and internationally. We would expect to accept no more than 12-15 students per year who will then move forward as cohorts for the 36-month program (two semesters of class each year). This would enable us to have at maximum an enrollment of approximately 45 students in various stages of the program. We would anticipate having 15 students total the first year, 30 total the second year, and then 45 total students at maximum from the 3rd year into the future. Since this is a highly specialized field, it is anticipated that the dropout rate will be quite low; however, in the event students must stop during their programs of study, they will be afforded the opportunity to re-enroll at the same point in the program when they dropped out. All students will be responsible for making their own financial arrangements. However, we have very good indications that the poultry companies(Appendix 4, Fieldale Farms), the pharmaceutical companies (Appendix 4, Merial) and the poultry vaccine companies will strongly consider financing the cost of educating their own veterinary employees or their customers' veterinarians.

It is highly likely the students will already be either fully or partially employed as veterinarians upon enrollment. The University of Melbourne, in order to have a "proof of concept," has already developed a model of the first two semester units, *Production-Health Interactions* and then *Poultry Pathology and the Diagnosis of Disease.* During 2006, these were tested with 4 fully-employed veterinarians as the test "students" (3 in Australia and 1 in Trinidad). It was found that the weekly time commitment for the students was 10-15 hours for the 16-week semester of online time. Additional time required for reading assigned material, examination preparation, etc., resulted in each one of these students achieving good marks (GPA of 3.0 or better) with a total of 15-20 hours study per week.

This online format will allow these working professionals to obtain this additional education in a self-paced study via a personal computer. The Australian Poultry Industry's Center for Research Co-operation has committed financial resources to complete the first 2 semesters of course material, educational design and multimedia development at a cost of $150,000. It is expected the cost for the learning units for the remaining 4 semesters will be an extra $200,000 with this cost being shared by University of Melbourne and the University of Georgia. The faculty at the University of Georgia have already funded the University of Georgia commitment of $100,000. The major portion of authorship of the final semesters will be by the faculty of the Department of Population Health, College of

Veterinary Medicine at the University of Georgia. The goal of the program is to be financially independent as soon as possible using the fees from the students enrollment to pay the estimated cost of one additional faculty position at each institution when the maximum enrollment has been achieved.

A brief overview of the curriculum is that each of the 6 semesters is a stand alone unit that is subdivided into three 3-hour credit lecture courses and one 3-hour credit laboratory course. The final semester will be a research project with a capstone paper resulting from their research on a topic approved by the faculties of the University of Georgia and the University of Melbourne. This paper will be required to meet the peer review standard for publication in a professional journal. For further detail on each of these semesters, http://www.avianhealthonline.vet.unimelb.edu.au/ can be consulted.

We expect that this program will train veterinarians to be more highly skilled and more effective poultry health specialists who will be able to collaborate with colleagues throughout the world to more rapidly diagnose and prevent diseases. Additionally, the veterinarians who graduate from this program will be more highly skilled in the areas of food safety and public health. The Centers for Disease Control expects the majority of the emerging threats to human health will come from animals as evidenced by SARS in China and Avian Influenza (H5N1) in Asia. As can be seen in Appendix 3, the fourth semester focuses on foodborne diseases and public health.

2. Program Objectives

a. Provide knowledge to poultry veterinarians worldwide. The poultry industry is growing very rapidly in many newly emerging countries like Brazil and China. There is a tremendous demand for highly skilled veterinarians as these industries grow not only in the areas of disease prevention and treatment, but in food safety and public health. This program will enable the veterinarians in these countries to remain employed in their local industry and become more knowledgeable and valuable to their employers and to the global consumer without being away in the U.S. for 2-3 years. The online delivery allows the University of Georgia to provide the students training from a multidisciplinary group of faculty, including veterinarians, microbiologists, poultry husbandry specialists and agriculture engineers. *This is not only a unique opportunity for the students to remain employed but also for the faculty of the University of Georgia to teach more students in this highly specialized field than would be possible in an on-campus classroom experience.*

b. Open the University of Georgia to an international pool of students. The University of Georgia degree, Master of Avian Medicine, is the preeminent degree in the U.S. for veterinarians desiring to specialize in poultry medicine. This hands-on classroom and on-farm program has been so successful for the past 36 years that now many students from around the world in countries with rapidly developing poultry industries would like this unique educational opportunity. However, this is not possible for two reasons: first, the hands-on nature of the MAM program does not allow for a large number of students to visit farms, hatcheries or other poultry industry facilities. Second, most international veterinarians who desire poultry health training remain in their full-time jobs in their own countries while studying. The interaction of these employed veterinarians with the University of Georgia and the University of Melbourne faculty will allow them to learn and grow in experience within their own country's poultry industries.

3. Justification and Need for the Program

a. Societal Needs: The global poultry industry, future growth trends and needs for veterinary postgraduate education

Globally, the poultry industry continues to be the fastest growing of all of the animal-based agribusinesses, and consumption of chicken meat per head now exceeds 10kg per person per year world-wide. In economically developed countries, this level of consumption is far higher, e.g., poultry meat intake per year in 2006 will average some 35kg per person in Australia and up to 50kg in the USA. Poultry products are therefore a very significant source of intake of high quality (animal) protein in our diets.

World-wide, of the total of some 65 million tones (Mt) of poultry meat currently being produced, the industries of the economically developed and the developing countries produce approximately equal amounts. By 2015 however, the poultry industries of those economically still-developing countries will produce some 60% of the world total, projected at 100.6Mt, while by 2030, poultry production from developing countries will double that of the developed countries (FAO statistics, *Poultry International Jan 2003*). Increased international movements and trade in poultry products must therefore be an inevitable development. Indeed, June 2006 projections for broiler production and trade to 2015 (*Poultry International*) have further confirmed the increasing momentum of these production and trade trends. The levels of poultry production will increase greatly in Brazil, China, Mexico, S.E. Asia and India, while more mature industries (e.g., those of USA, EU, Australia) will continue to grow but at lesser rates.

In almost all cases, the poultry veterinarians operating in these countries will not BE ABLE TO ACCESS THE LEVELS OF KNOWLEDGE AND TRAINING NEEDED AND NOW AVAILABLE from the Universities of Georgia and Melbourne, other than by distance education. These two universities working in collaboration to develop and then deliver structured online courses will enable continuing professional education. This will offer major opportunities to avian veterinarians for systematic professional development, while also increasing the quantity and the quality, i.e., food safety, of poultry products being consumed in many countries.

b. Demand for Poultry Veterinary Specialists

The demand for veterinarians with specialized training in poultry medicine still continues in the U.S. despite the slowing growth of the U.S. Poultry industry. However, when the global demand for poultry veterinarians is calculated based on the growth of the global poultry industry over the next 7-10 years, this figure indicates a need for an additional 1000 poultry veterinarians. This is further supported by a calculation that each veterinarian in the U.S. poultry industry is needed for every 20 million pounds of poultry meat produced. If we extrapolate this to the projected growth of the global poultry industry to 2015, this would demonstrate a need of approximately 4000 veterinarians. Subtracting the 2000 members of the World Veterinary Poultry Association would indicate a demand for 2000 additional poultry veterinarians by 2015. It is our belief that the more conservative estimate from the market surveys performed by the University of Georgia and the University of Melbourne of 1000 veterinarians over the next 10 years is a more realistic estimate for the potential market.

c. Online Format

A major advantage for the University of Georgia and the University of Melbourne with the online format is access to a larger pool of graduate students and the ability to teach a larger number of students by each faculty member in a year than would normally be taught face-to-face. Also, there will be no necessity for additional bricks and mortar for classrooms while we will be increasing student enrollment at the two universities. The process of this Master's program as designed by the University of Melbourne faculty combines the best from self-paced, instructor-led distance learning to deliver the educational material in a flexible, cost effective method of training larger numbers of professionals who are widely geographically distributed. The tools that are used are a combination of online lectures, assigned readings, interactive discussions with student co-hosts and faculty by e-mail or a discussion board. This format has many advantages for the student. They can remain employed in their home countries while taking classes. They can progress at their own pace (within given time parameters for assignments), run and re-run online simulations and case studies, and the online format allows students with less English speaking fluency more opportunity to process the material and formulate answers. It is our belief that this format may actually improve class participation/ discussions to the benefit of all students over a face-to-face course format.

d. Why a Joint Degree with the University of Melbourne?

This proposal is for a joint veterinary science Masters degree between the Faculty of the College of Veterinary Science at the University of Melbourne, Australia and the College of Veterinary Medicine of the University of Georgia. The joint degree program will not only expand international contacts and collaborations with the University of Georgia, but will provide the vehicle for both Universities to combine our leadership roles in continuing professional education and accreditation for avian veterinarians world-wide. The University of Melbourne has a strong leadership role for the developing industry in Asia and the University of Georgia is very strong in Latin America and the Carribean. A joint degree program between two international universities will provide a rich learning experience for students wishing to maximize their employment opportunities in a global employment market and will ensure the global consumer of poultry meat and eggs an adequate supply of safe/wholesome poultry meat and eggs. Also, the combining of many classmates globally will assist in the sharing of ideas and experience by interactions with international professional peers as they share their classes throughout their progression through the course.

This degree program will be owned equally by these two universities, being developed jointly through close interaction and collaboration between academic counterparts in the two veterinary schools. Class learning, feedback and assessment will be conducted online by selected staff to be drawn from both universities. Class groups will be 12-15 students, each being suitably pre-qualified veterinarians who work within the poultry industry of Australia, The Americas and the numerous other regions and countries which comprise the now – global poultry industry.

The *Masters degree in Avian Health and Medicine* will be delivered via Avian Health Online™, a proprietary program of the University of Melbourne. However, it has been agreed that the two veterinary colleges will have close collaboration on curriculum design and subject content, for the delivery of lectures and feedback to students, and unified assessment standards will be undertaken.

These two universities acting together in such an academic and professional partnership should represent both the spirit and practices which can be recognized in the Award of a Joint Degree. The

spirit of collaboration has been demonstrated by the University of Melbourne's approval of the Joint Degree in November 13, 2006 (http://www.unimelb.edu.au/Council/minutes/index.html).

e. Joint Degree and Online Format from Perspective of University of Melbourne

The proposed Master of Avian Health and Management Degree delivered by the University of Melbourne and the University of Georgia, Athens, will be the first "joint-badged" degree offered by the University of Melbourne Faculty of Veterinary Science, and the sixth such jointly developed and delivered program within the University of Melbourne. The University of Melbourne is in full support of this joint program as evidenced by the letter from Professor Caple, Dean of the School of Veterinary Medicine (Appendix 1).

f. Other Post-DVM Poultry Health Degree Programs

There are three established traditional programs that provide veterinarians with post-DVM Specialization. These are the University of Georgia, Master of Avian Medicine (1971), the North Carolina State University Program that began in 1981 as a residency program and recently became a Master's degree, and the Master of Veterinary Studies (Avian Health) at the University of Melbourne (http://www.cvm.ncsu.edu/studentservices/intern_resid/poultry.html). They each accept two students/year. All of these programs are very intensive hands-on training both in the classroom and "on the farm." There are no similar programs to this proposed online course.

4. Procedures Used to Develop the Program

The need for a program to train additional veterinarians for the international poultry industry has become greater as the global production of poultry meat has grown. To the graduate coordinator for the Department of Population Health in 2002, it became very apparent that there was a great demand for this training but with only two positions available each year, it was not possible to grow the number of students for the traditional Master of Avian Medicine program. Early in 2003, faculty of the Population Health Department met with Jay Harriman and Michele Estes in the Center for Teaching and Learning at the University of Georgia regarding the logistics of development of an online course in Avian Medicine. The project progressed to a proposal by them to offer online a course taught by Dr. Charles Hofacre, AVMD 6800, Avian Pharmacology and Toxicology. It was originally considered to have a partner university in Central/South America and at that time, internet access there was not reliable enough, so a hybrid course using CD/DVD and online was proposed.

Then in September, 2005, Dr. Trevor Bagust, the University of Melbourne, presented their work on Avian Health Online™ at the World Veterinary Poultry Association meeting in Istanbul, Turkey. Discussions following this presentation found that the University of Melbourne was farther advanced in the structure, course development and functionality of online delivery to poultry veterinarians but lacked the depth of expertise on course content for the disease husbandry interaction, microbiology and financial analysis. This led to an invitation for four of the University of Melbourne faculty, including one of the Associate Deans for the University of Melbourne's College of Veterinary Medicine, to come to the University of Georgia. The meeting held in May, 2006, included the clinical and microbiology faculty of the Department of Population Health and Dean Allen, the College of Veterinary Medicine, and Jay Harriman and Michele Estes. It was agreed by all after viewing the content of the Avian Health Online™ from the University of Melbourne combined with the faculty knowledge and poultry health experience of the University of Georgia that we would progress to the development of a joint program and joint degree as stated in the letter September 19, 2006, by Dr. Allen (Appendix 2).

Discussions with Dr. Del Dunn (V.P. for Instruction), Nelson Hilton (Director of the Center for Teaching and Learning) and Fiona Liken (Director of Curriculum Management) in June, 2006 led to a second meeting in November, 2006, with the same group plus Dean Maureen Grasso (Graduate School) and Judith Shaw (Associate Provost, Office of International Affairs) encouraging us to write the proposal for this joint academic program and degree.

5. Curriculum for Master of Avian Health and Medicine

The Avian Health Online is composed of individual units, each focusing on topics relevant to the modern poultry veterinarian. Each unit runs for 16 weeks and there are 6 units total. Each unit has the basic structure of 1 preparatory week, 14 "lecture" weeks and a final examination week. Students are expected to set aside approximately 15 hours per week for participation in online activities. As in a traditional course, the student will then be required to spend time each week reading assignments and studying.

The specific subjects covered in each semester/unit are as follows:

Semester/Unit 1: Poultry Industry Fieldwork
(<u>Begin Year 1</u>)
Learning Objectives:
Understanding the fundamental principles of how the following poultry production-based topics can directly affect the veterinary aspects of avian health:

- Poultry Housing, Husbandry & management
- Egg physiology and incubation
- Nutrition & ration formulation
- Genetics & Modern Poultry Breeding Production in hot weather environments
- Water for poultry health
- Poultry Welfare
- Environmental protection
- Site production-health Auditing

Semester/Unit 2: Poultry Pathology and Diagnosis of Disease
Learning Objectives:

- Develop a systemic approach to poultry disease investigations.
- Appreciate pathology in light of normal tissue appearance.
- Development of abilities to systematically construct practical differential diagnoses for resolving poultry disease problems.
- Understand how and when diagnostic tests can assist in disease diagnosis.

Semester/Unit 3: Microbiology and Serology for Disease Control
(<u>Begin Year 2</u>)
Learning Objectives:

- Understanding the potential interactions of pathogen, host and environment.
- Developing a sound working knowledge of how to perform, use and interpret microbiological and serological laboratory tests and use them most cost-effectively.
- Assimilate for each of the major poultry pathogens, knowledge on transmission patterns and apply this in the design of site biosecurity and pathogen-specific control programs.

- A sound appreciation of epidemiology (theory and applications) which are most relevant to poultry industry programs of disease eradication and surveillance.

Semester/Unit 4: Food Safety, Public Health and International Trade
Learning Objectives:

- Become familiar with the important food-borne pathogens significant to human health which can be associated with poultry products.
- Develop a sound theoretical and practical knowledge of the quality control measures required to ensure safe production and processing of poultry products.
- Develop sound understandings and abilities to apply the Hazard Analysis and Critical Control Point (HACCP) System to food safety at all stages.
- Know the theory and practical aspects of preparation and interpretation of the protocols for import risk assessments, and become familiar with the trade issues which relate to importing or exporting poultry products.

Semester/Unit 5: Avian Production & Financial Analysis
(Begin Year 3)
Learning Objectives:

- Develop a sound understanding of practical economics of achieving profitable poultry production with poultry flocks (breeder, layer and broiler production).
- Develop the skills needed to analyze financial implications of veterinary decisions in relation to production scenarios and evaluate the economics of implementing disease preventative measures versus the cost of a disease in a flock.
- Develop understanding in human capital development and skills in networking.
- Communications experience through group simulation on the selling of veterinary concepts and decisions at the management level.

Semester/Unit 6: Research Project Literature Dissertation
Learning Objectives:

- Develop a balanced understanding of how best to appreciate and use as professional resources the different types of scientific and technical literature.
- Acquire techniques and analytical abilities to enable preparation of a valid scientific research dissertation on a poultry health or production issue of your choice.
- Develop the ability to critically read and review scientific literature.
- Enhance personal communication and presentations skills.
- Prepare effective presentations for varying types of audiences.

Each of these units/semesters is three lecture courses and one laboratory course for each 4-month semester. In each of these courses, there are two topic areas of study, a major topic area and a minor topic area. At the end of each course, there is an examination (assessment test). At the end of the semester, there is then a final comprehensive examination that covers all four courses. These courses will all be new courses, except the final semester, in CAPA as described below. A more detailed description of each course can be found in Appendix 3. It better demonstrates the full depth of the program. The first two semesters in the University of Melbourne format have been completed by the University of Melbourne and have had four students successfully complete the semesters. These two semesters are password protected but can be viewed upon request from chofacre@uga.edu. The final four semesters require the assistance of the faculty from the Department of Population

Health, College of Veterinary Medicine, the University of Georgia for writing and completion. Since many of these students will be fully employed while taking the course, they will have class Fall Semester and Winter Semester with no summer semester classes.

Comparison to a Traditional Masters Degree

If we consider that a traditional course of study for a Masters degree requires a minimum of 30 hours of course credit, then to determine a traditional course credit equivalent for an online course, we must consider the student contact hours in a traditional course. Since this program will be delivered only as an online program, we have used the four test veterinarians who took the first two semesters to determine the amount of in-class time they experienced in front of their computer. This was found to average 15 hours of contact time per week per student for a total semester contact hours of 225 per student.

A traditional lecture course consists of three 1-hour lectures/week or 45 contact hours per 15 week semester and a traditional laboratory course would be 90 contact hours to qualify for 3 course credits. The proposed program will have both lecture and laboratory portions with the students being required to apply the lecture material to their countries' poultry farms. The proposed program will have 3 lecture courses of 3 credit hours /semester and 1 laboratory course of 3 credit hours/semester or a total semester credit of 12. The students would then graduate with a total of 72 credit hours.

If we compare this to the 18-month non-thesis traditionally taught course, the Master of Avian Medicine, these students graduate with 54 total credit hours. However, the on-campus course is much more intensive in time with students going to farms, feedmills, hatcheries, etc., for which they receive no course credit hours, so the two programs of study don't match well in course credits.

Curriculum Standards by National Organizations

Appended is a letter of support from the President of the American College of Poultry Veterinarians (ACPV) (Appendix 4). Also appended are the standards for approval of a training program for this organization (Appendix 5). The ACPV is a specialty board of the American Veterinary Medical Association. The mission of the ACPV is to "further educational and scientific progress in the field of poultry veterinary medicine," and to "provide guidance on the quality of and desirable levels of pre- and post-professional training…." This new online program will meet and exceed the requirements for accreditation as a training program for veterinarians to become credentialed to sit for the ACPV Specialty Board Examination upon graduation.

The outcome that will be a measure of the success of our curriculum will be how prepared our students will be when they take the rigorous three-part ACPV examination. Poultry veterinarians throughout the U.S. and the world aspire to become board certified Poultry Veterinarians. Our curriculum will definitely prepare our graduates to not only be qualified to sit for the exam, but will afford them the knowledge and experience to successfully pass this multiple choice, essay and practical diagnostic full-day examination.

6. Inventory of Faculty Directly Involved in the MAHM

The University of Georgia

Name	Title	Area of Work
John R. Glisson, DVM, MAM, PhD	Professor and Department Head	Clinical avian medicine, mycoplasmosis and bacteriology
Charles L. Hofacre, DVM, MAM, PhD	Professor and Director of Clinical Services	Clinical avian medicine, mycoplasmosis and bacteriology
Steve Collett, DVM, MS	Clinical Assistant Professor	Clinical avian medicine
Guillermo Zavala, DVM, MAM, PhD	Assistant Professor	Clinical avian medicine, Avian virology
Stanley H. Kleven, DVM, PhD	Regents Professor Emeritus	Mycoplasmosis
Holly Sellers, MS, PhD	Associate Professor	Avian virology
Pedro Villegas, DVM, PhD	Professor	Avian virology
Roy Berghaus, DVM, PhD	Assistant Professor	Epidemiologist
Stephan Thayer, PhD	Senior Public Service Associate	Clinical Avian Microbiologists

University of Melbourne

Steven Holloway BVSc, PhD,	Professor, Associate Dean (Multimedia)	Multimedia, Technology,Virologist
Trevor Bagust, BVSc, PhD, MACVSc (Avian Health)	Assoc. Professor	Clinical avian medicine, Virologist
Amir Noormohammadi DVM, PhD	Assoc. Professor	Clinical avian medicine, pathology, microbiology
Anthony Chamings, BVSc, MVS (Avian Health)	Assistant Professor	Clinical avian medicine and Online Interface Designer Avian Health Online
Kevin G. Whithear BVSc, HDA,PhD	Assoc. Professor	Microbiologist, Multimedia applications in Microbiology

Marc Marenda DVM, PhD	Assoc. Professor	Microbiology, Molecular Biology
Peter Scott BSc, BVSc,PhD Associate Professor		Clinician Disease Control and Prevention
Patrick Kluwer BVSc MACVSc (Epidemiology)	Assoc. Professor	Epidemiology
Ms Samantha Chen Master in MultiMedia Studies	Multimedia Services	Multimedia Designer

Faculty Workload

The faculty workload will be greatest in the initial writing of each unit and will then only have direct student involvement when their module or unit is being taught. Since the course is online, there will be no scheduled class time. The faculty members will check their e-mail for any student questions or for posting of discussion questions with subsequent responses. The estimated faculty time per week during the time the students are working on a faculty member's unit or module will be 1.5 hours/student enrolled in that unit/module. This estimate is based on the University of Melbourne experience with the four test students in unit 1 and unit 2.

Additional Faculty Required

In the first year of the joint program, it is estimated we will not need additional full-time faculty. These duties can be met by a part-time consultant clinical faculty member. However, once we begin to approach 50% of maximum enrollment, a full time clinical non-tenure-track-faculty member will be required. This position has already been approved by the Department Head of Population Health. The salary and benefits for this new faculty member will be paid from the University of Georgia portion of the tuition of the students.

7. Outstanding Programs of This Nature at Other Institutions

There are no other programs that are similar to this online degree in poultry health. The University of Melbourne has already begun this program as a pilot for the first two semesters and it has already been quite successful.

There are other programs that are on-campus traditional programs as mentioned previously: North Carolina State University, University of Melbourne and the University of Georgia Master of Avian Medicine (MAM).

North Carolina State University
Dr. David Ley, phone (919) 513-6269

University of Melbourne
Dr. Trevor Bagust, phone 61.3.9731-2011
The University of Georgia
Dr. Charles Hofacre, phone (706) 542-5653

Aspects of the University of Georgia Master of Avian Medicine program will be utilized as the Microbiology/Serology and financial units are written. Portions of the University of Melbourne Avian Health Program will be used in Product Quality and International Trade Unit.

8. Inventory of Pertinent Library Resources

All of the required readings for this course will be provided online to the students enrolled in the course. Permission/copyright release has been obtained for all materials in the first two completed units and will also be obtained for the remaining units.

The University of Georgia and the University of Melbourne both have very impressive access to electronic resources, including full text journal articles. No new library support will be needed to implement the MAHM program.

9. Facilities

The Poultry Diagnostic and Research Center on College Station Road in Athens will house this program's faculty members. Since this is an online course, there will be no need for additional bricks and mortar facilities.

10. Administration

This Masters Program in Avian Health and Medicine will be administered though the College of Veterinary Medicine's Office of the Associate Dean, Research and Graduate Affairs, with input from the Graduate Coordinator and Graduate Faculty from the Department of Population Health. Also, the Policy of Academic Honesty for the University of Georgia will be the standard followed throughout the students' three years.

Admissions Standards

The admission standards for the Master's program will be the same as admission for a traditional Master's as set by the Graduate School. Admission will require that a student has documented completion of a Doctorate of Veterinary Medicine or equivalent, university transcripts, GRE scores, letters of recommendation and English language competency.

11. Assessment

Direct Student Assessments

Web-based questionnaires (an exit questionnaire and a 5-year post-graduation questionnaire) will be sent to those who graduate form this program to assess its effectiveness. Input will also be sought from graduates on what are the most helpful aspects of the program and where improvements can be made. Responses will be compiled and reviewed by all of the faculty involved in the program and proper adjustments will be made to the program.

Learning Outcomes Assessment

Parameters to be measured will include success of students in current positions in the poultry industry and also the adequacy of preparation and success in their performance in the Poultry Medicine Specialty Board examination (American College of Poultry Veterinarians).

12. Accreditation

The program will be required to acquire and maintain accreditation for graduates to be eligible to sit for the American College of Poultry Veterinarians certification examination, see Appendix 4 letter of support from Dr. Don Waldrip, President of the American College of Poultry Veterinarians and Appendix 5, requirements to establish and maintain an accredited program.

13. Affirmative Action Impact

None

14. Degree Inscription

The diploma will be inscribed with Master of Avian Health and Medicine and will be a diploma having the seals from both the University of Georgia and the University of Melbourne.

15. Fiscal and Enrollment Impact and Estimated Budget

We would expect to accept no more than 12-15 students per year who would then move forward as cohorts for the 36 month program (two semesters of class each year). This would enable us to have at maximum an enrollment of approximately 45 students in various stages of the program.

The program will be jointly taught and managed by the University of Georgia and the University of Melbourne. At maximum enrollment, 1 full-time non-tenure-track Assistant Professor (veterinarian) at each institution will be required to oversee the students and their progress. This is anticipated to be filled by a helf-time non-tenure assistant professor. The program will include approximately 10 faculty members from the University of Georgia and 4 faculty from the University of Melbourne. All of the University of Georgia members are already members of the University of Georgia's College of Veterinary Medicine, Department of Population Health. In addition, a half-time Instructional Technology Systems Professional will be needed at the University of Georgia to be available to students and faculty as situations arise with the online course being used by 45 different students and 15 different faculty members. Two and ½ computer specialists will be employed by the University of Melbourne since the program will be hosted from the University of Melbourne servers. The graduate coordinator for the Department of Population Health will work with their counterpart at the University of Melbourne to provide the components of the program, therefore no additional resources will be needed.

The estimated additional resources for the University of Georgia would be immediately a half-time Instructional Technology Systems Professional and half-time non-tenure Assistant Professor; then in two years, a full-time non-tenure faculty member.

I. ENROLLMENT PROJECTIONS (indicate basis for projections in narrative)	FY 1 First Year	FY 2 Second Year	FY 3 Third Year
A. Student majors			
1. Shifted from other programs	0	0	0
2. New to institution	15	15	15
TOTAL MAJORS	15	30	45
B. Course sections satisfying program requirements			
1. Previously existing	0	0	0
2. New (each semester = 12 credit hours)	2	4	6
TOTAL PROGRAM COURSE SECTIONS	2	4	6
C. Credit hours generated by those courses			
1. Existing enrollments	0	0	0
2. New enrollments	360	720	1080
TOTAL CREDIT HOURS	360	720	1080
D. Degrees awarded	0 (yr 2)	15 (yr 3)	15 (yr 4)

II. COSTS	EFT	Dollars	EFT	Dollars	EFT	Dollars
A Personnel--reassigned or existing positions						
1. Faculty		0		0		0
2. Part-time faculty		0		0		0
3. Graduate assistant		0		0		0
4. Administrators		0		0		0
5. Support staff		0		0		0
6. Fringe benefits		0		0		0
7. Other personnel costs		0		0		0
TOTAL EXISTING PERSONNEL COSTS		0		0		0
B. Personnel--new positions						
1. Faculty						
2. Part-time faculty	0.50	40,000	0.50	40,000	1.00	80,000
3. Graduate assistant						
4. Administrators						
5. Support staff	0.50	15,000	0.50	15,000	0.50	15,000
6. Fringe benefits		4,800		4,800		38,400
7. Other personnel costs						
TOTAL NEW PERSONNEL COSTS		$59,800		$59,800		$133,400

	First Year	Second Year	Third Year
C. Start-up costs (one-time expenses)			
l. Library/learning resources	0	0	0
2. Equipment	0	0	0
3. Other (_____)	0	0	0
D. Physical facilities: construction or major renovation	0	0	0
TOTAL ONE-TIME COSTS	0	0	0

E. Operating costs (recurring costs--base budget)			
1. Supplies/expenses	0	0	0
2. Travel	0	0	0
3. Equipment	5,000	5,000	5,000
4. Library/learning resources	0	0	0
5. Other (_____)	0	0	0
TOTAL RECURRING COSTS	5,000	5,000	5,000
GRAND TOTAL COSTS	$64,800	$64,800	$138,400
III. REVENUE SOURCES			
A. Source of funds			
1. Reallocation of existing funds	0	0	0
2. New student workload	xxxxxxxxxx	xxxxxxxxxx	_____
3. New tuition (1/2 of $5,000/ Semester to UGA	$75,000	$150,000	$225,000
4. Federal funds	0	0	0
5. Other grants	0	0	0
6. Student fees	0	0	0
7. Other (_____)	0	0	0
Subtotal	0	0	0
New state allocation requested	0	0	0
GRAND TOTAL REVENUES	$75,000	$150,000	$225,000
B. Nature of funds			
1. Base budget	$75,000	$150,000	$225,000
2. One-time funds	0	0	0
GRAND TOTAL REVENUES	$75,000	$150,000	$225,000

Appendix Index

Appendix 1: Letter of support from Dean I.W. Caple, School of Veterinary Medicine, The University of Melbourne

Appendix 2: Letter of support from Dr. Sheila Allen, Dean, College of Veterinary Medicine The University of Georgia

Appendix 3: Detailed structure of the course

Appendix 4: Letter of support from the President of the American College of Poultry Veterinarians (ACPV)
Letter of support from the President of the American Association of Avian Pathologists (AAAP)
Letters of support from Industry

Appendix 5: Standards for approval of a training program for the American College of Poultry Veterinarians (ACPV)

THE UNIVERSITY OF MELBOURNE

December 7, 2006

Professor Sheila Allen,
Dean, College of Veterinary Medicine,
The University of Georgia,
Athens, Georgia 30602-4875
USA
RE: AVIAN HEALTH ONLINE™

Dear Dean Allen,

Our collegiate greetings in Veterinary Science!
As you will recall, this Faculty sent a Mission Team of four people to your College during May 8-12 this year. The exploratory discussions held under confidentiality between the representatives of our two Universities, on the feasibility and desirability of future joint development and teaching of Avian Health Online™ proved to be very positive.

The purpose of my letter now is to thank you for your subsequent support of this proposal to jointly develop this suite of postgraduate educational Units. I note with pleasure that your staff in the Poultry Research & Diagnostic Centre (Professors Glisson, Hofacre and colleagues) are already collaborating fruitfully with our academic staff under Dr Trevor Bagust (University of Melbourne Project Manager) for the development of Units #3 and #4 during 2006-2007.

I can also confirm that in the period June-November this year, this Faculty has worked intensively towards obtaining the formal academic and administrative approvals that are necessary within the University of Melbourne, to participate in this exciting educational joint venture with the University of Georgia. Currently, I am pleased to be able to confirm that the outcome to these endeavours has been successful. The University Council Meeting of 13 November 2006 accepted the Academic Board recommendation to approve the proposed joint Avian Health program with the University of Georgia. Formal notification of this is available from the "What Happened at Council" web page:
http://www.unimelb.edu.au/Council/whac/index.html

We in this Faculty are now looking forward to future opportunities for working closely with your senior staff in this Project. Our first priority will be to provide any assistance and documentation that may be needed to satisfy the parallel accreditation process within the University of Georgia to obtain formal academic approval for Award of the *Joint-Badged Degree* titled **Master of Avian Health and Medicine.**

You can be assured of the continuing best endeavours and good faith from this Faculty in supporting the balanced development of Avian Health Online ™ between our two institutions in 2007 and beyond. The conditions of any contract between us will be honoured in full.
The goal of our joint project, to produce and teach a first-class Masters program online which in future can benefit avian veterinarians around the world, is one which I feel will be truly worthy of our two Universities.

With my personal best wishes, and compliments of the season.
Yours sincerely,

Professor I. W Caple,
Dean

School of Veterinary Science
Veterinary Clinical Centre
The University of Melbourne
250 Princes Highway Werribee Victoria 3030 Australia
T: +61 3 9731 2000 F: +61 3 9731 2366
W: http://www.vet.unimelb.edu.au

The University of Georgia

College of Veterinary Medicine
Poultry Diagnostic and Research Center

Department of Population Health
Athens, Georgia 30602-4875

Phone: (706) 542-1904
FAX: (706) 542-5630

September 19, 2006

Dr. Trevor Bagust
Avian Health Online™ Course Coordinator
University of Melbourne
Faculty of Veterinary Science
Victoria, Australia 3010

Dear Dr. Bagust,

The Department of Population Health and the College of Veterinary Medicine of The University of Georgia have reviewed the draft documents "Joint University of Melbourne/University of Georgia Master of Avian Health and Medicine Degree Course" and "Shared Program Proposals" and the "Proposed Subject Entries for University Handbook" for a joint degree of Master of Avian Health and Medicine with the University of Melbourne. We support the concepts presented in these proposals and will respond in detail after review by the University of Georgia administration. We look forward to finalizing the program to enable veterinarians around the world to have the opportunity to obtain this joint Master of Avian Health and Medicine degree by the online coursework jointly developed and administered by the University of Melbourne and the University of Georgia.

It is the commitment of the Department of Population Health that we will assist in the development of the course material for the remaining modules while awaiting the full approval by the 2 universities to allow this joint degree to be conferred. Once the joint degree proposal has been tentatively approved, then the Department of Population Health of the College of Veterinary Medicine at The University of Georgia will be in a position to obtain the necessary funds to fulfill our portion of the cost for the program development.

We are very pleased to have the opportunity to develop and teach this online joint degree in Avian Health and Medicine with the University of Melbourne.

Sincerely,

Sheila W. Allen

Sheila Allen, Dean
College of Veterinary Medicine

John R. Glisson

John R. Glisson, DVM, MAM, PhD
Head, Department of Population Health

For Package Delivery: 953 College Station Road
An Equal Opportunity / Affirmative Action Institution

Proposed Courses of Study for MAHM

Semester 1: Poultry Health, Genetics and Husbandry Practices

POPH 74X1 Breeder Husbandry and Health

Credits: 3 hours lecture

Description: Understanding the production planning flow of broiler, turkey and layer breeders as this impacts on many husbandry related health issues.

Topics include: Chick placement, brooding and rearing, breeders and fertile eggs, layer hens and table eggs, pullet and hen mortality surveys and how to interpret results.

POPH 74X2 Incubation Theory and Hatchery Practices and Poultry Health

Credits: 3 hours lecture

Description: Egg handling and incubation dramatically affect the health and vitality of chicks and poultry and understanding proper husbandry will allow the veterinarian to differentiate diseases from husbandry malpractice.

Topics include: Egg collection, pre-incubation, on-farm and hatchery egg coolers, setting, transfer, in ovo vaccination, hatch and pull of chicks/poults.

POPH 74X3 Poultry Genetics and Nutrition

Credits: 3 hours lecture

Description: Poultry breed selection and breed crosses require specialized nutrition and husbandry.

Topics include: Mendelian breed selection procedures for leghorn breeds, broiler breeds and turkey breeds and the specific mineral, amino acid and vitamins requirements to maximize the immune system and health of these birds.

POPH 74X4 Poultry Husbandry Lab

Credits: 3 hours laboratory

Description: The student will apply topics of this semester to their country's poultry husbandry practices.

Topics include: Practical application of breeder husbandry, incubation, genetics and nutrition to be included in final thesis.

Semester 2: Poultry Disease Pathology

POPH 74X5 Poultry Viral Disease Pathology

Credits: 3 hours lecture

Description: Develop a systematic approach to poultry viral disease investigations, appreciative pathology in light of normal tissue appearance, development of abilities to systematically construct practical differential diagnoses for resolving poultry viral disease problems.

Topics include: Newcastle Disease, Avian Influenza, Infectious Bronchitis Virus, Infectious Bursal Disease Virus, Avian Reovirus, Turkey Coronavirus, and others.

POPH 74X6 Poultry Bacterial Disease Pathology

Credits: 3 hours lecture

Description: Develop a systematic approach to poultry bacterial disease investigations, appreciative pathology in light of normal tissue appearance, development of abilities to systematically construct practical differential diagnoses for resolving poultry bacterial disease problems.

Topics include: Fowl Cholera, Erysipelas, Pullorum, E. coli, Airsacculitis, and others

POPH 74X7 Poultry Prozoal, Fungal and Toxic Disease Pathology

Credits: 3 hours lecture

Description: Develop a systematic approach to poultry prozoal, fungal and toxic disease investigations, appreciative pathology in light of normal tissue appearance, development of abilities to systematically construct practical differential diagnoses for resolving poultry prozoal, fungal and toxic disease problems.

Topics include: Eimeria sp., Helminths, Aspergillosis, Mycotoxins and Environmental toxins

POPH 74X8 Poultry Disease and Toxin Laboratory

Credits: 3 hours laboratory

Description: The student will apply topics of this semester to their country's poultry husbandry and disease situation.

Topics include: Practical application of poultry health diagnosis and treatment to be included in final thesis.

Semester 3: Microbiology and Serology for Disease Control

POPH 74X9 Avian Virology

Credits: 3 hours lecture

Description: Viral pathogens of poultry characterization, classification virus isolation in diagnostic virology.

Topics include: Paramyxoviruses, Othormyxoviruses, Poxviruses and others

POPH 75X1 Bacterial Pathogens of Poultry

Credits: 3 hours lecture

Description: Bacterial pathogens of poultry characterization, classification, and diagnostic bacteriology.

Topics include: Pasteurella multocida, Escherichia coli, Erysipelothrix sp., Salmonella sp., Mycoplasma sp. and others.

POPH 75X2 Immunology and Serology

Credits: 3 hours lecture

Description: Understanding the avian immune organs such as the bursa of Farbricius, thymus and gut/respiratory associated lymphoid tissues and how they react to the bacterial and viral pathogens and vaccines.

Topics include: Use of antibody measuring tests such as ELISA, gel and plate agglutination tests etc. in diagnosing diseases and measuring response to vaccines.

POPH 75X3 Poultry Microbiology and Serology Lab

Credits: 3 hours laboratory

Description: The student will apply topics of this semester to their country's health and preventive vaccination situation.

Topics include: Practical application of virology, bacteriology techniques with serology monitoring to be included in final thesis.

Semester 4: Food Safety, Public Health and International Trade

POPH 75X4 Salmonella Foodborne Diseases

Credits: 3 hours lecture

Description: In depth review of Salmonella infection in poultry and how it can be transmitted to humans including reduction and eradication programs.

Topics include: Live vaccines, inactivated and autogenous vaccination, antibiotic treatment and husbandry practices to prevent introduction of Salmonella into poultry flocks.

POPH 75X5 Campylobacter and other Poultry Foodborne Diseases

Credits: 3 hours lecture

Description: In depth review of campylobacter infection and other pathogens in poultry and how it can be transmitted to humans including reduction programs.

Topics include: Campylobacter jejuni, Campylobacter coli, Clostridium perfringens, Staphylococcus aureus and Listeria monocytogenes.

POPH 75X6 Poultry Health Issues Impacting International Trade

Credits: 3 hours lecture

Description: Presence or absence of certain poultry diseases can significantly affect a country's ability to export poultry meat or eggs. The diagnosis, eradication, sanitation and testing to eliminate or prevent introduction of these diseases will be covered.

Topics include: Exotic Newcastle Disease, Avian Influenza and others.

POPH 75X7 Food Safety, Public Health and International Trade Lab

Credits: 3 hours laboratory

Description: The student will apply topics of this semester in either food safety and public health or international trade in poultry farm/company in their country.

Topics include: Practical application of food safety or trade work to be included in final thesis.

Semester 5: Avian Production Economics and Financial Analysis

POPH 75X8 Economics of Poultry Production

Credits: 3 hours lecture

Description: Feed conversion ratio, feed per good pullet, eggs per hen housed, hen day egg production all are affected by health issues that veterinarians must prevent, treat or reduce disease impact upon.

Topics include: Feed ingredient quality, mycotoxin impact, body weight and uniformity, feed conversion issues, and effect of disease on body weight, growth rate and condemnation.

POPH 75X9 Poultry Disease Prevention Programs

Credits: 3 hours lecture

Description: Disease prevention by vaccination, preventive antibiotic and anticoccidial programs and their cost vs. benefit in terms of bird health and improved financial return.

Topics include: Developing vaccination anticoccidial or antibiotic programs.

POPH 76X1 Poultry Health Surveys and Communication

Credits: 3 hours lecture

Description: Learning to do routine health survey is a commonly used tool for evaluating the poultry flocks or companies' health issues that impact profitability.

Topics include: Bursa to body weight ratio surveys, coccidia surveys, intestinal health surveys and normal mortalilty surveys, graphics and presentation styles for this type of data.

POPH 76X2 Avian Production Economics and Financial Analysis Laboratory

Credits: 3 hours laboratory

Description: The student will take a health survey from one of this semester's topics and apply it to the company or farmers financial bottom line.

Topics include: Practical application of financial/economic surveys to be included in the final thesis.

Semester 6: Research Project, Literature Summary and Thesis

VPAT 7000 Master's Research

Credit: 6 hours

Description: Research while enrolled for a master's degree under the direction of faculty members.

VPAT 7300 Master's Thesis

Credit: 6 hours

Description: Thesis writing under the direction of the major professor.

AMERICAN COLLEGE OF POULTRY VETERINARIANS
382 West Street Road, Kennett Square, PA 19348

Phone: 610-444-4282
Fax: 610-925-8106
Email: acpv@vet.upenn.edu
Website: http://www.acpv.info

February 21, 2007

Dr. Charles Hofacre
Professor & Director of Clinical Service
College of Veterinary Medicine, Population Health
953 College Station Road
Athens, GA 30602-4875

Dr. Chuck,

In a world of exploding traditional need, especially affordable high quality protein, Poultry has become and will continue to be a primary supplier in filling this need. Increased production efficiency will be an ongoing goal for filling this need. In general, knowledge and technological advance are the major contributors toward increased poultry productivity. The attached joint proposal from UGA and University of Melbourne addresses these needs in a major and unprecedented fashion, thus dovetailing with the mission or the American College of Poultry Veterinarians. Therefore, the college whole heartedly endorses this new training/study program that leads to a master of Avian Health & Medicine Degree, any encourage rapid development.

Sincerely,

D W Waldrip, DVM, Diplomat ACPV
Pres. ACPV

UNIVERSITY OF CALIFORNIA, DAVIS

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(530) 752-1358
FAX (530) 752-4278

SCHOOL OF VETERINARY MEDICINE
ONE SHIELDS AVENUE
DAVIS, CALIFORNIA 95616-8743

4/28/07

Dr. Chuck Hofacre
Dept. Avian Medicine
University of Georgia
Athens, GA 30602

Dear Chuck,

I am happy to provide a letter of support for the proposed new distance learning graduate program, the Master of Avian Health and Medicine at The University of Georgia College of Veterinary Medicine, in cooperation with the University of Melbourne. As the only didactic and clinical instructor in Poultry Medicine at the University of California-Davis, I can attest to how sorely needed are new ways of training veterinarians in poultry medicine. Here at the University of California, we have residency positions in Poultry Pathology offered at the California Animal Health and Food Safety Laboratories and a Poultry Medicine field residency, of which I am the Service Chief. Neither of these programs offers a formal degree, although we encourage prospective candidates to have a Master's of Preventive Veterinary Medicine or similar degree. Even so, we can only train 3-4 residents at a time, and the residency program requires 2 years of study. When observing the limited numbers of poultry veterinarians that the MAM and North Carolina State programs here in the US produce, it is a meager number! Not only is the demand for poultry veterinarians increasing, as you have indicated, many of our current members are close to retirement. When considering how important our profession is to human and animal health, it is frightening to anticipate this future shortage.

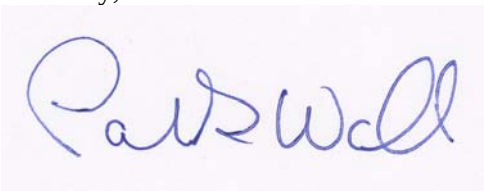
The University of Georgia, with its MAM program, has a long and successful track record of training poultry veterinarians. Also, the poultry industry in Georgia has strongly supported both The University of Georgia and the MAM program. The poultry medicine / science programs at many universities have been lost or severely truncated due to frequent University budget cuts and diminishing industry support. I do not see a future for my program here at Davis after I retire. Therefore, based on the stability and history of the MAM program, I can see no better place than University of Georgia for your proposed program. In addition, the international strength of the University of Melbourne's participation should make your new program a "gold standard" for poultry medicine training.

After reading the proposed outline, I am impressed with the attention to detail and the quality of the program. It is true that financial limitations and time constraints prevent many qualified veterinarians, especially internationally, to pursue advanced training. At this time, the most critical need for trained personnel is in developing nations. USDA, USAID and FAO have been actively soliciting US poultry veterinarians for long and short-term assistance with the Avian Influenza outbreaks in Southeast Asia. How much better it would be if there were adequate numbers of poultry veterinarians in these areas already!

An additional pool of individuals that might benefit from the online program would be small and large animal veterinarians currently in practice that might want to enhance their knowledge of poultry diseases. Here in California, we have a huge number small specialty flocks and pet poultry that are in need of veterinary care, but are unable to access a poultry veterinarian. These clients are usually served by veterinarians who are not poultry specialists. Both of California's recent outbreaks of Newcastle Disease Virus were submitted to the state laboratory system by small animal veterinarians. My introductory poultry medicine class had an enrollment of 110 students last year, most of which were sophomore veterinary students. The demand for additional poultry medicine training can be from many sources!

Therefore, I strongly support your proposal for the online MAHM program. It is unique, well thought out and desperately needed. Please let me know if I can be of any further help.

Sincerely,



Patricia S. Wakenell, DVM, PhD, Diplomate, American College of Veterinary Pathologists
Service Chief and Professor of Poultry Medicine
President, American Association of Avian Pathologists
University of California-Davis
Davis, CA 95616



fieldale farms corporation

March 4, 2007

To Whom It May Concern:

This letter is to express my enthusiastic support for the proposed new distance learning graduate program, the Master of Avian Health and Medicine at the University of Georgia College of Veterinary Medicine, in cooperation with the University of Melbourne. As a graduate of the existing Master of Avian Medicine program and a participant in the industry for 17 years, I believe this is a much needed program that will meet a critical global need and further advance the status of the University of Georgia as an international center of advanced learning. I also believe this program represents a new paradigm in distance learning that will provide a valuable model for the University for years to come.

A number of recent studies such as the National Research Council Committee Recommendations "Animal Health at the Crossroads – Preventing, Detecting, and Diagnosing Animal Diseases" and the Food Supply Veterinary Medicine Coalition Report are predicting severe shortages in food supply veterinary medicine in the near future. While the predicted shortages in poultry medicine in the US are less severe than those projected for cattle and swine medicine, they are real, and the poultry medicine shortages are likely to be worse in other parts of the world, especially in developing nations. The proposed program would address this pressing need and would help ensure a plentiful, safe supply of protein for the world. The increasing incidence of emerging and re-emerging animal and especially zoonotic diseases, particularly in developing areas, further increases the urgency for a program such as this.

This program could also have value in addressing the projected shortages in the other food animal areas by serving as a model for post-DVM training in these highly specialized areas. Making such training more accessible to practitioners in rural areas and developing nations is one strategy to increase the pool of trained individuals to address emerging needs.

The MAM program is currently without dispute the "gold standard" for this type of post-DVM training not only in the US but internationally. Unfortunately, access to this type of hands-on training is necessarily limited; there are only about three such programs currently extant in North America and precious few internationally. The proposed program promises to maintain the high standards of the MAM, but with greater accessibility, especially to the international community where the need is so great.

P.O. BOX 558 — BALDWIN, GEORGIA 30511 — TELEPHONE (706) 778-5100
FAX: (706) 778-3767

I give this effort my unqualified endorsement, and urge you to fully support its formation. Please contact me if I can provide any further information to support the formation of this visionary program.

Sincerely,



John A. Smith DVM, MS, MAM
Director of Health and Hatchery Services
Fieldale Farms Corporation

Chair, United States Animal Health Association Committee on Transmissible Diseases of Poultry and Other Avian Species

Chair, American Veterinary Medical Association Animal Agriculture Liaison Committee

Merial Select, Inc.
P. O. Drawer 2497
Gainesville, GA 30503-2497
Tel. 770 536 8787
Fax 770 534 8558

October 12, 2007

Dr. Chuck Hofacre
Dept. Avian Medicine
University of Georgia
Athens, GA 30602

Dear Dr. Hofacre:

It is with great hope and enthusiasm that I write this letter in full support of the joint proposal for an avian program co-administered by the Universities of Georgia and Melbourne. This program resolves the issues associated with joining an avian Master's program in the conventional way, especially for international students. The proposed outline covers in detail the standards to form a trained poultry veterinarian, which is a very scarce resource not only in the US but internationally as well, moreover in developing countries, where the opportunities to join a program like this is even smaller. Additionally, this proposal provides the opportunity to offer a more homogeneous poultry background to a larger number of veterinarians. This common background is a critical factor for the implementation of global policies and tools for the improvement of poultry production, poultry health and food safety worldwide. I commend both institutions for this great initiative which will hopefully be reality in the near future.

Sincerely,

Enrique Montiel, DVM, MSc., diplomate ACPV
Senior Veterinarian
Merial Select Inc

APPLICATION FOR REVIEW AND APPROVAL
TRAINING PROGRAM IN POULTRY VETERINARY MEDICINE
AMERICAN COLLEGE OF POULTRY VETERINARIANS
TRAINING PROGRAM REVIEW COMMITTEE

I. ADMINISTRATION

"The training program must be formally affiliated with and administered by an accredited college or university."

A. Please provide the name and address of your training program:

B. Name and address of accredited college or university with which your training program is affiliated:

C. Name and address of accrediting organization:

D. Please label (A, B, or C) and attach any supporting documents for A, B, or C to this page.

II. MISSION, GOALS, OBJECTIVES, OUTCOMES

"Mission, goals, objectives, and outcomes must be clearly defined. There must be an effective system (assessment plan) for evaluating the outcomes of the program relative to its missions, goals, and objectives."

A. Please define your training program with respect to:

1. Mission statement:

2. Goals (list or describe):

3. Objectives (list or describe):

B. Please describe your system (assessment plan) for evaluating the outcomes of the program relative to its mission, goals, and objectives.

C. Please label (A or B) and attach any supporting documents for A or B to this page.

III. FACULTY

"There must be at least 3 resident or affiliated faculty members who are Diplomates of the American College of Poultry Veterinarians. The faculty must be capable of achieving the mission, goals, and objectives of the program."

A. Please list the names, addresses and telephone numbers of resident faculty members who participate in your training program, and who are Diplomates of the American College of Poultry Veterinarians:

1.

2.

3.

4.

5.

6.

B. Please list the names, addresses, and telephone numbers of affiliated faculty members who participate in your training program, and who are Diplomates of the American College of Poultry Veterinarians:

1.

2.

3.

4.

5.

6.

IV. RESOURCES AND FACILITIES

"The program must be housed in a physical facility that is conducive to learning. There must be evidence of adequate financial support of faculty / staff, facilities, and equipment."

A. Please provide the address of the physical facility that houses the training program:

B. Briefly, describe this facility:

C. Is this facility conducive to learning?

D. Please provide evidence (descriptive summary is sufficient) of adequate financial support of your faculty, facilities, and equipment:

E. Please label (A, B, C, or D) and attach any supporting documents for A, B, C, or D to this page.

V. RESIDENTS / STUDENTS

"Resident recruitment, admissions, and selection criteria must be clearly defined and practiced."

A. Please define your resident / student recruitment process:

B. Please define your admissions criteria or process:

C. Please define your selection criteria:

D. Do you practice the criteria and processes defined in A, B, and C above?

E. Please label (A, B, C, or D) and attach any supporting documents for A, B, C, or D to this page.

VI. CURRICULUM

"A written curriculum statement must have structure. An outline of the educational objectives and learning activities is required. There must be at least 12 months of formal training. Courses must be clearly defined with measurable outcomes. There must also be a significant link between the formal training and training that involves direct contact with the poultry industry (numbers of diagnostic case accessions, companies served, industry problems solved, internship / externship arrangements among companies and ACPV Diplomate poultry veterinarians). The program must facilitate the student's scholarly development."

A. Please outline the educational objectives of, and learning activities in your training program:

1. Educational objectives:

2. Learning activities:

B. How much time must the resident / student spend in your program in order to complete all of the requirements of the program?

C. Where are the training program course contents clearly defined?

D. Do the program courses have measurable outcomes?

E. What are the possible outcomes, and how / where are they recorded?

F. Describe what link(s) exist between your formal training program, and training that involves direct contact with the poultry industry.

G. How does your program facilitate the student's scholarly development?

H. Please label (A, B, C, D, E, F, or G) and attach any supporting documents for A, B, C, D, E, F, or G to this page.

VII. CONTINUING EDUCATION

“As part of their training for future professional education, students should be afforded the opportunity and be encouraged to participate as presenters and recipients of continuing education.”

A. Please list or describe exactly what opportunities students in your training program have to present and receive continuing education while participating in the training program:

B. Please label (A) and attach any supporting documents for A this page.