



# DANDER

December 2005

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<http://www.jcu.edu.au/school/bms/avpa>

## President's Report

Another year is coming to a finale, which also means that the older generation chook veterinarians are also another year older. I hope that the perch continues to stay strong for us all. Our concerns for the poultry industry still remain unchanged for this last quarter and include:

- The continued persistence and progression of Avian Influenza in Asia and now into Europe.
- The continued decline in the list of medications that we can use in our poultry livestock. DMZ at the moment may be only maintained for breeders and this is covered in the therapeutics report.
- Pricing pressures, particularly in the egg industry, are impacting on the sustainability of some operators and certainly limiting capital expansion. It is the role of the veterinarian under these conditions to ensure that flock health and biosecurity is not compromised.
- Shortages in personnel to take positions as intensive livestock veterinarians, technical roles for biological companies and QA roles continue within the industry. We need though to consider if these shortages are a result of the absence of people to fill these or that more attractive alternatives exist for such professionals.

Exercise Eleusis was held at the end of this year to test our preparedness for an outbreak of Avian Influenza (AI) using our current Emergency Animal Disease Response Plan. Many members of the AVPA were actively involved in this

activity which proved to be successful. Up to 90 international observers were impressed with the way the scenario was developed and the exercise undertaken. While a detailed evaluation has not yet been completed the exercise, as it was designed to do, identified several weaknesses particularly in the areas of people resources and communications. The review will address these areas.

Avian Influenza or "Bird Flu" as it is known in the media has reinforced within the poultry industry the need for stringent biosecurity programs. The industry with the help of the AVPA has attempted to provide the Australian public with confidence as to the fundamental facts that clinical AI or "Bird Flu" is not present in the Australian commercial poultry industry, we as an industry are both physically and technically better prepared than most other countries and finally that the scenario of AI in poultry is distinct from a human influenza pandemic.

It has been difficult to get the media interested in these more positive aspects and this sometimes is not being assisted by scientists with particular research or commercial agendas.

Next year we again link our conference up with PIX and at this meeting transfer control of the AVPA from Victoria to our NSW colleagues. The conference program is shaping up to be of a high quality but again at a low cost thanks to our executive and sponsors.

Until we chat again in the New Year I wish all our members the best for the last few days of 2005 and a bright beginning to 2006

**Peter C. Scott**

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*The Australian Veterinary Poultry Alliance is a Special Interest Group of the Australian Veterinary Association. Membership of the AVPA is available to individuals and groups working in, or interested in, any veterinary aspect of poultry.*

*Dander will be published quarterly (March, June, September and December). Contributions are welcome. Electronic copy is requested. Deadline for copy is by the end of the second week of the month of publication. Please send information on abstracts of interesting papers, summaries of reports, case histories, social news etc. to Kevin Whithear, School of Veterinary Science, The University of Melbourne, 250 Princes Highway, Werribee 3030, Victoria <kevingwt@unimelb.edu.au> fax 03 9731 2366.*

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## Summary of Upcoming Scientific Meetings

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- February 2006** *Australian Poultry Science Symposium.* University of Sydney. Contact Prof. T. Scott; Email: [toms@camden.usyd.edu.au](mailto:toms@camden.usyd.edu.au). Website: <http://www.vetsci.usyd.edu.au/apss>. February 20-22, 2006.
- March 2006** *55th Western Poultry Disease Conference.* Sacramento, California, USA. Contact: Conference & Event Services, Davis, California. Phone: +1-530-752-0198; Email: [confandeventsvcs@ucdavis.edu](mailto:confandeventsvcs@ucdavis.edu). Website: [conferences.ucdavis.edu/wpdc](http://conferences.ucdavis.edu/wpdc). March 6-8.
- April 2006** *PIX2006.* Gold Coast, Queensland 2-4 April 2006. Contact Geof Runge [Geof.Runge@dpi.qld.gov.au](mailto:Geof.Runge@dpi.qld.gov.au)
- April 2006** *AVPA Queensland Conference.* Gold Coast, Queensland 5-6 April 2006. Contact Dr Kevin Whithear; Email: [kevingw@unimelb.edu.au](mailto:kevingw@unimelb.edu.au). June 29-July 4 2008.
- April 2006** *6th International Symposium on Avian Influenza,* St. John's College, Cambridge, UK. Contact: Dr. I. Capua. Fax: +39 49 8084360; Email: [icapua@izsvenezie.it](mailto:icapua@izsvenezie.it). April 3-6
- June-July 2008** *23<sup>rd</sup> World's Poultry Conference and Sixth Asia Pacific Poultry Health Conference.* Brisbane Conference and Exhibition Centre. AVPA Contact Dr Kevin Whithear; Email: [kevingw@unimelb.edu.au](mailto:kevingw@unimelb.edu.au). June 29-July 4 2008.
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## What's your diagnosis?

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### Case History:

A steady drop of egg production, about 2-3%, was noted in a farm of 52-week-old broiler breeders with 6 sheds, approximately 5,000 hens per shed. Fertility and subsequently, hatchability, also dropped significantly. Mortality has remained within normal limits. The farm is surrounded by vegetable gardens that use poultry manure as fertiliser. All sheds have dirt floors and are curtain-sided. This part of Victoria has been experiencing a cold and wet spring this year causing areas of shed floors to be wet and caked possibly due to capillary action. A high number of litter beetles were also observed during examination of the sheds. Gross pathology did not reveal any significant findings except when the small intestines were opened.

### What did the pathologist see?

Answer on page 10

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## MEMBERSHIP MATTERS

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### Membership List (as of 29 June 2005)

If you have paid your 2005 subscriptions and your name has been inadvertently omitted from this list, please accept our apologies and contact the Membership Secretary [ajturner@bigpond.net.au](mailto:ajturner@bigpond.net.au). In particular, some AVA members may have paid their 2005 subscriptions when renewing their AVA membership and the membership secretary may be as yet unaware of their identity. AVPA requests that members pay their annual subscriptions directly to AVPA rather than through the AVA.

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**2005 Financial Members:** Robin Anderson, Edla Arzey, George Arzey, Caroline Ash, Trevor Bagust, John Barnett, Susan Bibby, Doug Blackall, Pat Blackall, Wayne Bryden, David Buckley, Graham Burgess, Grant Campbell, Eleanor Chaine, Peter Claxton, Peter Coloe, Kim Critchley, Peter Cowling, Colm Culligan, Mike Cundy, Peter Curtin, Wieslaw Demkowicz, Laurie Dowling, Elizabeth Evans, Peter Gray, Tom Grimes, Peter Groves, David Hampson, David Homer, Bob Hughes, Fakhrol Islam, Clive Jackson, Rod Jenner, Noel Johnston, Bob Johnston, Wayne Jorgensen, Roberta Karparthy, Vivien Kite, Sanjeev Kumar, Phil Lehrbach, Margaret MacKenzie, Michael McDermott, Paul McQueen, Gina Micke, Krystyna Minkiewicz, Linden Moffatt, Robert Morton, Adam Naylor, Amir Noormohammadi, Sarah Plant, Barry Philips, Rod Reece, Bruce Remington, Grant Richards, Julie Roberts, Simon Robinson, Ambrosio Rubite, Peter Scott, Margaret Sexton, Agim Shini, Shaniko Shini, Wafa Shinwari, Via Sfetsas, Jillian Templeton, Andrew Turner, Greg Underwood, Aileen Vanderfeen, Steve Walkden-Brown, John Walters, Ben Wells, Kevin Whithear, Pam Whitley.

**Life Members:** Balkar Bains, Leon Barlow, Roger Chubb, Dinah Fry-Smith, Paul Gilchrist, Harvey Langford.

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Please see the AVPA website for information on sustaining members and links to websites

### AVPA Sustaining Members 2005

Sustaining members contribute funds that help defray costs of services to members of the AVPA. We thank all sustaining members for their active interest and support.

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### OzBioPharm

OzBioPharm Pty Ltd, 24 Parkhurst Drive Knoxfield 3180 Victoria. Tel/fax: (02) 9440 5360

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Pace Farm, Locked Bag 800 Rooty Hill 2766 NSW (02) 9830 9800

Contact: Frank Pace [fp@pacefarm.com](mailto:fp@pacefarm.com)

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Sunnybrand Chickens, Pty Ltd Ewingsdale Road Byron Bay 2481 NSW. (02) 6639 6888.

Contact: Andrew Young

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Sunny Queen, 1248 Lytton Road Hemmant 4174 Qld. (07) 3907 9999

Contact: Azi Laghai

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## Therapeutics Subcommittee Report

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### Critically Important Antibacterial Agents for Human Medicine - Risk Management Strategies of Non-Human Use.

A report of the World Health Organisation (WHO) working group meeting held in Canberra last February has recently been released. Of concern is the inclusion of a number of antimicrobials that are currently registered for use in poultry as "critically important" for human use. This includes amoxicillin, neomycin (as part of the aminoglycoside group), tylosin and erythromycin (as part of the macrolide group).

Comparison between this report and the Australian EAGAR (Expert Advisory Group on Antimicrobial Resistance) report shows the WHO report to include many antibiotics as having "critical" importance to human medicine that EAGAR has classified as having a "low" or "medium".

The EAGAR report is currently used to complete risk assessments related to the potential development of antimicrobial resistance for registration of new antimicrobials, label change requests and reviews.

Whether the recent WHO report results in a "tightening" of criteria used for registration of antimicrobials in food producing animals in Australia based on their importance to human medicine remains to be seen.

### Australian Veterinary Association Quality Use of Antimicrobial Drugs (QUAD) Subcommittee

I have been asked to represent the poultry industry on this new committee whose objectives are outlined below.

#### QUAD objectives

- To examine current prescribing and use practices of antimicrobial drugs.
- To provide the AVA with expert analysis and opinion based on well researched evidence to underpin discussions on antimicrobial drug prescribing, judicious use and antimicrobial drug resistance in the contexts of animal health and welfare, public health and trade.
- To work closely with and widely consult with the veterinary profession in developing opinions, guidelines and recommendations on the judicious use of antimicrobial drugs.
- To develop recommendations for improvements in prescribing and use practices of antimicrobial drugs.
- To act pre-emptively, as supported by the TAC, by working with AVA SIGs to develop, introduce and promote the adoption of new codes of practice and guidelines that enhance the veterinary practice of judicious use of antimicrobial drugs and ensure that current practices are based on or consistent with the available evidence.
- To establish working relationships and interactions with key medical groups (for example the NHMRC Expert Advisory Group on Antimicrobial Resistance (EAGAR), the Australian Council on Healthcare Standards (ACHS); the Australian Infection Control Association (AICA)) that also seek to ensure the adoption of the highest standards of antimicrobial prescribing.

- To motivate and facilitate the development and implementation of relevant research programs by veterinary schools to address priority issues related to antimicrobial use.
- To promote continuing education in the field of quality use of antimicrobial drugs.

Some of the first actions to come out of this meeting were

- To involve the AVA SIGs in completion of a revised (3<sup>rd</sup>) edition of the Sydney University Post Graduate Foundation book of Prescribing Guidelines. This is to ensure that this document, which currently contains chapters written by individual authors, becomes more evidence based, representative of industry veterinary common practice, and takes into account the potential development of antimicrobial resistance in the recommendations that it presents for treatment of individual conditions. Poultry are currently not represented in this book, although cage and aviary birds do have a chapter, so a new poultry chapter will have to be developed for inclusion.
- It was agreed by all members that a survey of the current antimicrobial use practices of practitioners should be completed. While the amount of antimicrobials imported into Australia is known, how this is dispensed and used on a species by species, area by area basis is not known. An application for funding of a survey to take into account rural, regional and city veterinary practices will be completed.

### Dimetridazole – APVMA review.

The review of the use of Dimetridazole (DMZ) in pigs and poultry by the APVMA continues.

DMZ is not going to be available for use in layer hens that are laying eggs for human consumption, or in broiler chickens and turkeys. Limited use in breeder chickens and turkeys, with an extended withholding period on eggs, is likely to be allowed if the APVMA can be satisfied that producers will abide by the egg withholding period.

The pork industry remains very unhappy with the proposed withdrawal of this chemical from use in all pigs and are meeting with the APVMA in the new year to negotiate this point further.

A copy of the DMZ review report can be found at - [http://www.apvma.gov.au/chemrev/dimetridazole\\_draft\\_report.pdf](http://www.apvma.gov.au/chemrev/dimetridazole_draft_report.pdf)

**Susan Bibby,  
Convenor, AVPA Therapeutics Subcommittee**

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EDITORS NOTE: There is an interesting article on the epidemiology and control of histomoniasis post DMZ in the USA by Larry R. McDougald in the November-December edition of PIP (Poultry Informed Professional). The newsletter can be downloaded from <[www.avian.uga.edu/documents/pip/2005/PIP-Nov-Dec%202005.pdf](http://www.avian.uga.edu/documents/pip/2005/PIP-Nov-Dec%202005.pdf)>

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## WVPA Bureau Member Report

### Minutes of the General Business Meeting held at the XIV WVPA CONGRESS

Istanbul, Turkey, 23 August 2005, 17:00 – 18:10

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**Present:** President and Chairman Prof. E.F. Kaleta, Secretary/Treasurer Dr. U. Heffels-Redmann and approximately 100 members

**The President and Chairman Prof. Kaleta welcomed the participants.**

**Secretary/Treasurer's report:** Dr. Heffels-Redmann presented her report dealing with the development of the membership, the homepage, and the finances of the WVPA for the year 2004. There are currently 1956 members in 53 countries. National branches exist in 37 countries. 28 of these have 20 or more members. New branches had been formed within the last two years in Mexico, Poland, Tunisia and Ukraine. The formation of these branches has been approved by the Bureau and the new members were welcomed in the Association.

Copies of the Account and Balance Sheet for the year 2004 have been sent to all branches and individual members. In the last year the Association's assets increased from EURO 33,316.81 to EURO 36,266.69 due to a surplus of income over expenditure of EURO 2,949.88. At the last Bureau Meeting it was decided to support the WVPA Congress attendance in Istanbul of ten young scientists from developing countries with an amount of EURO 7500. According to the experience of the Congress Organization with this financial support the Bureau has to decide how to proceed at the next Congress.

The in-time payment of the membership fees and the updating of the membership addresses are important for personal subscription to 'Avian Pathology' which will also enable the access to the full paper online version from 2006. This will only be possible, if a proof of actual WVPA membership (membership certificate/receipt of payment for the year from the Corresponding Secretary or the Secretary/Treasurer of WVPA or copy of the bank transfer voucher of the membership fees has to be given to the publisher of Avian Pathology.

**WVPA homepage:** Dr. Heffels-Redmann reported that the WVPA home page was visited about 1200 times per month. The mostly visited pages were the pages 'WVPA Congress', 'International Conferences', 'Avian Pathology', 'Houghton Trust Travel Grants and Lecturer', 'National Branches' and 'How to join WVPA' as well as 'Education'. Visitors of the homepage came mainly from the USA, Germany and Australia.

The Bureau agreed to omit the link to the poultry related industry to avoid a commercialisation of the website, and to install links to websites of other organizations like the WPSA and national poultry veterinarians associations. Additionally a page with job offers in the WVPA branch countries shall be opened.

**WVPA Newsletter:** As the Editor of the newsletter 'Aerosols' Dr. Carol Cardona was not able to attend the Meeting, Dr. Heffels-Redmann presented her report for the Aerosols issues No. 15 (December 2003) and No.16 (November 2004). Approximately 1,600 of each edition were circulated. For the next issue, all participants were asked to send reports on meetings, disease outbreaks and other important events in their countries to Dr. Cardona (address on the wvpa website).

**Avian Pathology/Editor-in-Chief's report:** Dr. Cavanagh presented the main points of his report for the year 2004 (Volume 33):

- 143 papers received in 2004 (155 & 151 in previous two years).
- Acceptance rate was 48% (53% & 43% in previous two years).
- 78 primary papers and 5 reviews published in volume 34 (2004).
- Latest Impact Factor 1.371 (published in 2005 for 2004)
- AVP has the highest Impact Factor of journals devoted to avian species.
- Median publication time of 6.5 months following receipt of initial manuscript (June 2005 issue).

Additionally he pointed to the new web address: [www.avianpathology.com](http://www.avianpathology.com), SARA, a free email contents alerting service designed to deliver tables of contents for all Taylor&Francis journals including Avian Pathology in advance of the printed edition, free online access to full papers of the actual issue from 2006 on for individual subscribers, who are WVPA members, free online access to back issues (Volume 33 (2004) for all from 2006 on, the access to issues from 1998-2003 will follow soon, free access to older back issues via intersession by Dr. Cavanagh to respective libraries

**Report on the XIVth WVPA Congress by a member of the Organizing Committee:** Dr. Gürer gave a preliminary report on the ongoing Congress. 730 persons registered for the Congress, but about 200 cancelled their registration before the Congress. Due to the offer of simultan translation of the English presentations into Turkish, the attendance of Turkish colleagues could be increased significantly (206 plus about 200 participants for one day). The scientific programme comprises 15 keynote lectures, the Houghton Lecture, 174 oral and 199 poster presentations. Along with the Congress, the VIV 2005 Istanbul Exhibition took place with free entrance for all Congress participants.

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**Report on the XVth WVPA Congress by a member of the Organizing Committee:** Prof. Hanchun Yang announced that the XVth WVPA Congress will be held in Beijing, China on 12-16 September 2007. The local scientific Committee will consist out of ten well-known Chinese scientists. The Scientific Chairman for the Congress is Prof. Jiao Zhou, the President of the Poultry Health Branch of the Chinese Association of Animal Science and Veterinary Medicine. The Congress will take place in the Beijing International Convention Center. The registration fees will be US\$ 350 for early and US\$ 400 for late registrations. A flyer with the first announcement was presented at a stand. The scientific programme comprises keynote lectures to selected topics, oral presentations and poster presentations. Additionally there will be an exhibition. Detailed information on the congress can be obtained from the website of the WVPC 2007 [www.wvpc2007.org](http://www.wvpc2007.org). A film on Beijing and the Convention Center was presented, and on behalf of the Congress Organizing Committee, Prof. Yang invited all participants to attend the 15th WVPA Congress in his country in 2007.

**Election of Officers:** The participants of the Meeting approved the recommendations of the Bureau by electing with no dissenting votes.

Prof. Dr. Hafez M. Hafez    President

Dr. Trevor Bagust            Vice-President

(2<sup>nd</sup> Vice-President is automatically the former President Prof. Erhard F. Kaleta)

Dr. Ursula Heffels-Redmann            Secretary/Treasurer (re-elected)

Dr. Lloyd Spencer                          Honorary Life President

Prof. Dr. A.A. Sami Ahmed Honorary Life President

**Election of Honorary Life Members:** The Meeting elected Prof. Dr. Josef Kösters, Germany and Dr. Eugen Vielitz, Germany as Honorary Life Members whose nominations have been approved by the Bureau because of their distinguished contributions to avian science.

**Houghton Trust Lecturer 2005:** Dr. Ilaria Capua, Italy has been chosen by the Grants Subcommittee of the Houghton Trust as the 2005 Lecturer. She gave her lecture entitled 'Avian Influenza – Past present and future challenges' on 23 August 2005 at the end of the morning session.

**Bart Rispens Research Award:** The winner of the 2003 Award is Dr. Andre Steentjes, The Netherlands, of the 2005 Award is Dr. Rüdiger Raue, Germany. The Awards were presented to Dr. Wil Landman, a co-author of Dr. Steentjes, and Dr. Raue by the Chairman of the Board of Trustees, Dr. Ton Schat, during the Gala Dinner.

**Future of the Bart Rispens Research Award:** After a short overview on the history of the Award (The award has been established in 1973 after the sudden death of Dr. Bart Rispens by Dr. Henk Mass 1. to honour Dr. Rispens by the Research Award and 2. to secure the education of his two young children by a Trust fund. Gifts from industry sources, other organizations and friends of Dr. Rispens provided the funding. During the 1990's the Trust fund for the two children has officially been terminated. Since then the Board of Trustees raised additional funds from several vaccine industries to support the research award) Dr. Ton Schat, the Chairman of the Board of Trustees, proposed to fully integrate the Award into the WVPA. This means that the WVPA shall be responsible for the secretarial work of the Research Award Committee and for the funding of future awards. Up to now the part of WVPA was that the President became at the same time Chairman. of the Research Award Committee and that WVPA gave a support of 500 Euro to the travel expenses of the Award winner. The Bureau supported the idea of Dr. Schat, but ask for detailed information on the finances, possible sponsors and work of the Research Award Committee. Before the final decision, this information shall be given to all Bureau members in a circular letter.

**XVth WVPA Congress in 2009:** Prof. Kaleta announced that the Bureau decided by majority voting for Marrakesh, Morocco as venue for the XVth WVPA Congress. The Representative of the Moroccan Branch Prof. Bouzoubaa thanked the Bureau members for their vote, and invited the participants to attend the Congress on 8-12 June in 2009. He gave the audience an impression of Marrakech as a congress venue by a Power point presentation.

**Any other Business:** none

Prof Kaleta thanked all participants for their attendance, and closed the Meeting at 18:10 hours.

**Dr. U. Heffels-Redmann, Secretary/Treasurer of WVPA**

**Giessen, Germany, 17/10/05**

**Trevor Bagust**

**WVPA Bureau Member**

EDITOR'S NOTE: These Minutes have been edited slightly to be consistent with the formatting of *DANDER*. The original can be obtained from the WVPA Bureau Member Trevor Bagust [trevorjb@unimelb.edu.au](mailto:trevorjb@unimelb.edu.au)

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# The History of Infectious Bronchitis in Australia

R. B. Cumming

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Readers will remember Paul Gilchrist's reminisces published in *DANDER* a couple of years ago. These provided valuable historical insights into the early days of the AVPA and the practice of poultry medicine in the 1960's.

When I was President of AVPA, Professor Rob Cumming gave me a copy of an article he had written about his experiences as a poultry veterinarian and academic researcher at the University of New England and his not infrequent spats with various authorities. The article includes correspondence with and comments about animal disease control bureaucrats that are probably a bit too long and too controversial to publish in full in *DANDER*. However, the article provides a fascinating account of Rob's isolation of infectious bronchitis virus from cases of 'uraemia' in chickens and his fight to have his discovery recognised by some of those responsible for animal disease control in Australia (we were considered to be free of infectious bronchitis virus at the time). I hope the late Rob Cumming's article will be of interest to AVPA members. An edited version will be published in instalments in this, and future editions of *DANDER*.

Kevin Whithear, Editor

## Poultry Respiratory Disease in 1960

When I arrived in Australia at the end of March 1960, the respiratory disease complex that existed in Australian poultry flocks was rather confused. It was well known that infectious laryngotracheitis (ILT) was widespread and vaccination was carried out by veterinarians against this disease, particularly around the Sydney area. A condition known as mucoid tracheitis was frequently mentioned but the cause was unknown. Little definitive work had been done to establish the presence of other poultry pathogens, either bacterial or viral. The country was considered free from Newcastle Disease and infectious bronchitis. At this time, the major disease affecting poultry flocks and especially the fledgling broiler industry, was a kidney disease complex known as "uraemia". Deaths from uraemia in some commercial broiler flocks reached 80% and a number of possible causes were bandied about including toxic factors in meat meals.

## MG Control

My initial research, once I had settled down in Armidale, was to demonstrate that poultry flocks could be reared and maintained free of the causal organism of chronic respiratory disease complex (*Mycoplasma gallisepticum* (MG)). In collaboration with Professor Doug Coles at Onderstepoort Veterinary Research Station in South Africa, I had worked on the field control of MG and I was really applying the methods which had proved successful in South Africa to the Australian situation. I commenced by totally depopulating the University poultry farm at Laureldale and starting again in August 1960 with day old chickens from a Tamworth hatchery. I obtained an MG antigen from America and this was used to test blood samples from birds to show if they had been exposed to MG or not. The pullets at Laureldale were tested at monthly intervals with the antigen and proved negative throughout. The birds never showed signs of any respiratory disease.

About 110 km south of Armidale is the city of Tamworth, around which was a large poultry industry, and there were some extremely forward looking farmers in the area.

I was approached by Lindsay Bull of Dungowan early in 1961 to visit his farm and to see if I could help him with his respiratory disease complex: This was the beginning of a very successful joint project in the Tamworth area involving many poultry farmers, including Lindsay Bull, Vic Field, Cohn Quast, Jock Douglas, Carl Scharffeter, and many others. In addition, I was greatly assisted by the appointment of a new Department of Agriculture poultry officer to the Tamworth Area, Ross McIndoe. Ross and I, both new boys to the Tamworth area, got on very well together and determined to make the Tamworth poultry industry a leader in New South Wales and possibly Australia. Together we started the New England Branch of the Worlds' Poultry Science Association in Tamworth, Three or four well-attended meetings were held each year for many years.

We really made quite a lot of progress and by early 1962, had established a number of MG-free farms, including the University farm at Laureldale. More farmers joined in and there was a great deal of enthusiasm around in the local poultry industry as many farmers reorganised their housing and management practices to eradicate MG. I then decided I would have a look at the disease uraemia, which was causing extremely heavy losses all over the country. With this in mind, I made an arrangement with Paul Gilchrist, who was then the poultry pathologist at Glenfield Veterinary Research Station, that in the future, he would concentrate on the respiratory diseases of poultry and I would concentrate on uraemia.

## Initial Uraemia Research

In April 1962 a paper was published in America (Winterfield and Hitchner, 1962) about the isolation of an infectious bronchitis (IB) virus from a disease syndrome characterised by inflammation of the kidneys (nephritis) in young chickens. After discussions with Dr Stephen Hunt in Sydney, Dr Hunt bled some survivors from a flock that had suffered from uraemia and sent them to America to determine if they had antibodies to IBV. The results came back as negative.

At this time the most widely held cause of uraemia was the possible presence of factor(s) in meat meal, following the work of Beilharz and McDonald (1960). I attempted to repeat the work of Beilharz and McDonald using rations with high and low meat meal contents, but could not evoke the disease. I should say that, at this stage, I had never seen or experienced an outbreak of uraemia in young chickens. However, I had been shown cases of the disease in Sydney by Stephen Hunt.

The 12th World Poultry Science Congress was held in Sydney in August 1962, and attracted a large number of international poultry experts. This included Dr Steve Hitchner and he visited a number of commercial poultry farms while in Australia and was shown cases of uraemia. He said that the kidneys appeared very similar to the condition they had shown was caused by an IB virus in the USA. After the Congress, I asked Stephen Hunt to send me some sick chickens from an outbreak of uraemia in the Sydney area when he could and I would attempt to isolate an IB virus from the chickens. Five broiler chickens were received one Saturday morning in September from a farm near Sydney, and I had to interrupt my Saturday morning tennis to go to the railway station to collect these birds.

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## IB on Laureldale Poultry Research Farm

As mentioned earlier, the University poultry farm at Laureldale, had been established MG-free in late 1960. In August 1962, we bought in 700 day-old cross-bred pullets and these were under the care of an exceptional poultry husbandry person, Maurice Bell, who managed the birds on the Laureldale Poultry Farm. Maurice prided himself on his husbandry expertise, and to three weeks of age, had only lost four pullets. He telephoned me at 6.30 one morning in mid-September to say that our MG eradication appeared to have broken down as we had a respiratory disease in the chickens, then three weeks old. I immediately visited Laureldale and examined the young pullets which were on deep litter on a brooder shed. Careful listening and observation revealed that there was a very mild snick or sneeze in this flock of birds - symptoms that could be readily missed by the unobservant, but not by Maurice. The symptoms passed away over the next couple of days, but then several of the birds appeared sick, standing in a huddled attitude with feathers erect. Approximately 10% of the flock appeared sick and these developed a whitish diarrhoea and drank excessively. The shed did not have automatic waterers and Maurice had to constantly fill up the drinkers. Over the following six days, 17 birds died and all showed the same lesions on postmortem - the kidneys were markedly swollen and pale and the breast muscles appeared dark and dehydrated. Kidneys were aseptically removed from the dead birds and stored in the deep freeze.

On 29th September - two days after the first death in the brooder shed - an explosive respiratory disease broke out in the laying hens on Laureldale. The flocks consisted of 300 White Leghorn and 700 Black Australorp breeding hens housed in groups of 100 on deep litter and 530 Leghorn/Australorp cross-bred hens in single cages. These birds were about 12 months of age, were negative to the MG plate agglutination test and had never shown any evidence of respiratory disease. The symptoms in these layers were those of acute respiratory distress, and the coughing could be heard at least 20 yards away from the sheds. Clinical examination revealed no wet eyes or nasal discharge.

In view of the arrangement I had made with Paul Gilchrist, I asked Maurice Bell to send off three or four affected hens to Paul Gilchrist at the Veterinary Research Station at Glenfield next day. However, as I went to sleep that night, I suddenly realised that this respiratory disease in the hens could be related to the mild respiratory disease in the pullets and the uraemia I had found in the dead birds. Next morning, I rang Maurice Bell at 6 o'clock and told him not to send the hens to Glenfield. However, the very efficient Maurice had taken the birds into the railway station the previous evening for the night train and they were then almost at Glenfield and could not be stopped. I informed Paul of the symptoms we had seen in these layers and left it at that.

### First Attempts at Virus Isolation

Fortunately I had a flock of White Leghorn hens mated up and I was able to immediately use these eggs for virus isolation. Following the classical methods for isolating IB virus, I had to inject material from the kidneys into nine to ten day old embryos and harvest the fluid 48 hours later. This was repeated three times and then the material was injected into nine-day old embryos and these eggs left in

the incubator for a further week. Alongside these injected eggs were similar uninjected eggs to act as controls. Imagine my delight when on the 15 October 1962, I opened the eggs and those that had received material from the kidneys of the dead chickens showed the classical IB dwarfing and curling of the embryos (I remember the date so clearly because my birthday is on 16th October). This first isolation was from the Laureldale chickens and I repeated the work with the specimens from Stephen Hunt and the adult hens and obtained the same results.

I discussed my findings with Frank Annison who was Acting Head of Department at that time as Bill McClymont was away on sabbatical leave for all of 1962. Frank immediately understood the importance of the finding but cautioned me to be quite sure that I had done everything correctly. As he said, if my work could not be reproduced by others "those other vets will crucify you". The facts are that I was quite correct but I was crucified as well. I then infected by eye-drop some two-week old chickens with fluid from the infected eggs and five days later these chickens looked sick. Over the next few days several died and revealed pale swollen kidneys on post mortem examination. I was able to isolate the embryo-dwarfing agent from the kidneys. Thus I had fulfilled Koch's postulates - taken diseased kidneys from chickens, isolated an agent from them in another medium, returned the agent to the same species and produced the original disease. I was convinced that the cause of uraemia was an IB-type virus.

### First IB Publication and Response

Editorial comment:

Rob immediately sent off a short letter to the Australian Veterinary Journal that was published in November 1962. However, officers from the NSW Department of Agriculture who were responsible for the implementation of quarantine procedures and the notification of exotic disease in NSW were initially reluctant to accept Rob's findings. It should be remembered that IB was regarded as an exotic disease at this time. Their doubts were compounded by the facts that:

1. No virus had been isolated from birds with uraemia from the Laureldale flock at the NSW Department of Agriculture Veterinary Research Station, Glenfield
2. Serum samples taken from birds from flocks with uraemia sent to the USA had tested negative for IBV.

There also seemed to be a level of disbelief in the corridors of power (and not just in NSW) that such a discovery could be made by a relatively unknown scientist at a small rural university.

Rob, in his indomitable fashion, convinced that he was right - he had fulfilled Koch's Postulates - concluded:

"So my finding really put the cat among the pigeons, but fortunately other workers then started to repeat my work and confirmed it".

More on IBV and the struggle to get research funding in the next edition of *DANDER*.

## AVPA Scientific Meeting – Gold Coast 2006

Wednesday 5 April and Thursday 6 April  
Holiday Inn, Gold Coast Queensland

### PRELIMINARY DRAFT SCIENTIFIC PROGRAM

#### Wednesday 5 April

Time	Topic	Speaker
0830	<b>Registration</b>	
0920	<b>Opening and Welcome by AVPA President</b>	Dr Peter Scott
Session 1	<b>Avian Influenza – the Latest</b>	Chairperson: Dr Peter Groves
0930	Eradication strategies against Avian Influenza	Dr Goossen van den Bosch (Intervet)
1000	Avian influenza to pandemic influenza - Planning and preparedness	*Dr Moira McKinnon or Dr Lance Sanders, Department of Health and Ageing
1030	Wrap up of Eleusius*	*AFFA speaker
1100	<b>Morning Tea</b>	
Session 2	<b>How much do feed additives improve broiler performance?</b>	Chairperson: Dr Peter Scott
1130	Microencapsulated acidifiers and their place in poultry feed	Dr Robert Gauthier (JEFO International)
1200	Salmonella control*	*Alltech speaker
1230	The use of sodium butyrate in combination with free organic acids in poultry	Dr Koen Schwarzer (INVE Nutri-Ad)
1300	<b>Lunch</b>	
Session 3	<b>New Research</b>	Chairperson: To be announced
1400	Avian Hepatitis E virus: Identification of infected broiler breeder flocks in Europe and clinical effects of infection	Dr Chris Morrow (Aviagen)
1420	ILT – Epidemiology and diagnosis	Dr Amir Noormohammadi (University of Melbourne)
1440	A survey on the presence and levels of food-borne pathogens in Australian broiler litter*	Dr Pat Blackall (QDPI&F)
1500	The epidemiology of <i>Campylobacter</i> in broiler flocks – an Australian perspective*	Dr Jillian Templeton (QDPI&F)
1520	<b>Afternoon Tea</b>	
Session 4	<b>Reports from the New Generation of Poultry Scientists</b>	Chairperson: Dr Kevin Whithear
1550	Bacterial vectored delivery of prophylactic proteins to control necrotic enteritis	Scott Sheedy (CSIRO)
1610	Extracts from Australian and New Zealand native plants as prebiotics for broiler chickens	Janak Vidanarachchi (UNE)
1630	Relationships between gut microbial species and energy metabolism in broiler chickens	Dr Valeria Torok (SARDI)
1650	Development of a novel attenuated vaccine for infectious laryngotracheitis	Jo Devlin (University of Melbourne)
1710	OGM/AGM	Dr Peter Scott, President AVPA
1930	<b>AVPA Dinner</b>	

\*Title and/or speaker to be confirmed.

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## Thursday 6 April

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Time	Topic	Speaker
<b>Session 5</b>	<b>The latest on sanitisers and antimicrobial resistance</b>	Chairperson: To be announced
<b>0900</b>	Innovations in antimicrobials from farm to fork in the poultry industry	Dr. Kere Kemp (Ecolab)
<b>0930</b>	Selecting a Disinfectant for EDC — Emergency Disease Control	Mike Pritchard (Antec)
<b>0950</b>	Sanitisers*	*To be announced
<b>1010</b>	Antimicrobial resistance*	*To be announced
<b>1030</b>	<b>Audience Discussion</b>	
<b>1100</b>	<b>Morning Tea</b>	
<b>Session 6</b>	<b>Debate: Are antibiotics used in poultry in Australia a human health risk?</b>	Dr Tom Grimes
<b>1130</b>	Affirmative	Prof Peter Collignon (The Canberra Hospital)
<b>1145</b>	Negative	Dr Rod Jenner (Golden Cockerel)
<b>1200</b>	Rebuttal: Professor Peter Collignon	
<b>1205</b>	Rebuttal: Dr Rod Jenner	
<b>1210</b>	<b>Audience Discussion</b>	
<b>1230</b>	<b>Lunch</b>	
<b>Session 7</b>	<b>Infectious aerosols from poultry facilities</b>	Chairperson: Dr Pat Blackall
<b>1400</b>	Are tunnel ventilated meat chicken sheds a contributor to bacterial pathogens of public health importance to the surrounding environment?*	*Dr Nalini Chinivasagam (QDPI&F)
<b>1430</b>	Marek's disease viruses in poultry dust - current knowledge and implications	Assoc Prof Steve Walkden-Brown, UNE
<b>1500</b>	Psittacosis – Field experiences and diagnostic dilemmas*	*To be announced
<b>1530</b>	<i>Clamydophila psittaci</i> – Laboratory diagnosis*	Dr Peter Timms, QUT*
<b>1600</b>	Close	

\*Title and/or speaker to be confirmed

## What's Your Diagnosis?

### What did the pathologist see?

The presence of a very large number of tapeworms in mid-intestine.

The tapeworms were identified as *Choanotaenia infundibulum*, by Dr Ian Beveridge, University of Melbourne.

**Comments:** All other possible factors causing drop in egg production and fertility and hatchability, including nutritional factors, were ruled out.

Unfortunately, there is NO currently registered drug against, or for, the control of cestodes in commercial poultry.

Thanks to Drs Soy Rubite and Amir Noormohammadi for this "What's your diagnosis?"



Contributions to "What's your diagnosis?" from other AVPA members would be most welcome.

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## Further Information

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Further details about the course are available at [www.avianhealthonline.vet.unimelb.edu.au](http://www.avianhealthonline.vet.unimelb.edu.au) or from Dr Trevor Bagust (phone) 03 83449676, (email) [trevorjb@unimelb.edu.au](mailto:trevorjb@unimelb.edu.au). Information about the scholarship including application guidelines and selection criteria can be obtained at [www.poultrycrc.com.au](http://www.poultrycrc.com.au) or from Associate Professor Kevin Whithear (phone) 03 97312265, (email) [kevingw@unimelb.edu.au](mailto:kevingw@unimelb.edu.au).