

The Paratuberculosis Newsletter

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International Association for Paratuberculosis**

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DEADLINE FOR NEXT ISSUE: November 15, 2009.

All contributions should be sent to ssn@life.ku.dk

Søren Saxmose Nielsen
Editor

1. IAP Business

11ICP – Sydney

The 11th ICP will be held in Sydney Australia from Sunday 5th to Friday 10th February 2012. The venue is the beautiful University of Sydney campus, centrally located between the harbour and the airport (20 minutes). There are a wide range of accommodation options available on the campus or close by. The weather in February will be perfect for people wishing to escape the northern hemisphere winter! A program of pre-conference tours and scientific workshops are under development or consideration. The scientific program will be exciting and a graduate student program is being planned to showcase the valuable contributions of new researchers. Please contact Richard Whittington for updates: richardw@camden.usyd.edu.au. Details of the conference website will be provided in later editions of this newsletter.

2009 Election Results

The newly elected IAP Officers and Board of Directors took office at the conclusion of the 10ICP.

The Officers are:

President: Ramon Juste
Vice-President: Ivo Pavlik
Editor-in-Chief: Søren S. Nielsen
Secretary-Treasurer: Ray Sweeney

The Board Members are:

Norma Arrigoni - Italy
Jeroen de Buck - Canada
Joseba Garrido - Spain
Murray Hines - United States
Gregers Jungersen - Denmark
Kumanan Kathaperumal - India
Eiichi Momatani - Japan
Victor Rutten - Netherlands
Judy Stabel - United States
Karen Stevenson - United Kingdom
Richard Whittington - Australia

Together, these 15 members make up the Governing Board of the IAP. Congratulations to all and thanks for your service to the IAP.

10ICP Proceedings

Proceedings of the 10th International Colloquium on Paratuberculosis will be published hopefully at the end of 2009, and will be made available to all members of the association.

Deadline for providing extended abstracts is **November 10, 2009**.

See instructions at: <http://submissions.paratuberculosis.org>



10ICP in Minneapolis

More than 300 paratuberculosis enthusiasts were at the University of Minnesota, Minneapolis in the middle of August for the 10th International Colloquium on Paratuberculosis (10ICP). It was a hallmark meeting in that we celebrated 20 years after the first international meeting on paratuberculosis.

I was there and I thoroughly enjoyed the 5 days of science, social activities and discussions with old and new colleagues. The local organizers made sure that we could enjoy the activities in a relaxed and stimulating atmosphere. Thank you to Scott Wells and his team. The scientific committee lead by Srinand Sreevatsan and John Bannantine, had put together a stimulating scientific program with great variation. Thank you for putting this program together. I am happy to report that participants seemed to take advantage of the well-organized meeting to establish new contacts and to maintain old ones. Unfortunately, I did not manage to eavesdrop on all conversations at the meeting, so I have been guessing about the content of the conversations in some of the following pictures. I hope my guessing is better than my science, and hope nobody will take offence ☺

At the end of the week, on my trip back to Denmark, I was exhausted but also quite happy with having been there once again. I am already looking forward to 11ICP in Sydney in February 2012!

Søren Saxmose Nielsen
10ICP participant



"I am telling you Dr. Sweeney: we are in up to here!"





"I'll make you a deal, you share this lunch box with me and I'll tell you about a fantastic discovery we made in Belgium"



"David and Frank – this research here is the best ever!! May be we should do something similar?"



International Association for Paratuberculosis

Financial Report—Second Quarter, 2009 (3/31/2009 to 6/30/2009)

	<u>Checking</u>	<u>Savings</u>	<u>CD</u>	<u>Total</u>
Opening balance (1/1/09)	\$4,2639.29	\$30,932.81	\$54,524.53	\$89,693.63
Q1 Closing balance (3/31/09)	\$ 8,811.78	\$29,450.46	\$54,926.62	\$93,188.86
Q2 Closing balance (6/30/09)	\$32,635.83	\$29,461.35	\$55,338.7	\$117,435.88

Receipts

	<u>Dues</u>	<u>Book Sales</u>	<u>Interest</u>	<u>Other</u>	<u>Total</u>
<u>Receipts</u>					
Q1	\$5450.00	\$220.00	\$419.83		\$6,089.83
Q2	\$3250.00	\$422.97		9ICP \$ 20,754.51	\$24,427.48

Expenses

	<u>Credit card processing fees</u>	<u>Other</u>	<u>Total Expenses</u>
Q1	\$307.01	Open Journ Sys \$ 787.50 Web Master \$ 1500.09	\$ 2,594.60
Q2	\$180.46		\$ 180.46

Net income

Q1	\$ 3,495.23
Q2	\$ 24,247.02

-submitted 7/1/2009, Raymond W. Sweeney, VMD; Secretary-Treasurer

2. Comments & Opinions

Turmoil in U.S. dairy industry: An opportunity to improve herd quality with respect to *Mycobacterium avium* subspecies *paratuberculosis*

Gilles R. G. Monif

In the United States, over production of milk has resulted in milk price turmoil. In order to stabilize milk prices, the National Milk Producer Federation's Cooperative Working Together program (CWT) is now proposing to assist dairy-producing members to retire entire dairy herds in order to stabilize milk prices. Member milk producers can submit a bid to take their cows out of production (www.cwt.coop). CWT is offering to pay for future milk production. The producer will receive the slaughter price for the cow. At the same time, political pressure is being placed upon the United States Department of Agriculture to implement an export dairy incentive program.

This narrow focus on a single strategic goal misses unique opportunities to improve residual dairy herds as well as dampening embedded economic counter shocks that will adversely affect the beef industry.

Unless carefully done in close concert with the beef producers and Cattlemen's Association, the proposed program may result in a significant number of animals being available for slaughter in a limited time frame.

Since 2003, the preponderance of scientific data supports the contention that, more likely than not, a significant relationship exists between *Mycobacterium avium* subspecies *paratuberculosis* (Map) and Crohn's disease. At some point, the word voluntary will have to be removed from Johne's disease herd management programs and, with it, the luxury of using insensitive Map ELISA tests that identify only a fraction of infected animals. The prevalence of Map specific antibody within large dairy herds is such that massive replacement with sero-negative heifers will be required. Given the resultant reduction of reproductive animals, the problem will be finding animals meeting the stipulated requirements.

A better policy may be to use herd reduction as an opportunity to upgrade the projected residual dairy herd with cows that have demonstrated the ability to terminate mycobacterium replication resulting from low inoculum challenges.

The newly proposed natural history of Map infection has indicated that most animals within a large dairy herd will, at one time or another, become infected with Map. Like their human counterparts, the vast majority of infected cows attain immune governance of Map both systemically and at the portal of infection. Cows having demonstrated the ability to terminate continued mycobacterium replication constitute ideal animals for continued milk production since the potential for systemic dissemination and continued production of viable Map into the milk has theoretically been aborted.

The net effects of identifying and using dairy cows that have achieved auto-immunization are three-fold:

- 1) auto-immunized cows, more likely than not, can be retained in production longer;
- 2) by process of natural selection, their progenies, more likely than not, represent animals with genetically enhanced ability to withstand environmental exposure to Map and genomically related pathogen; and
- 3) auto-immunized cows should significantly reduce the liability of the dairy industry associated with potentially introducing pathogenic organisms into the human food chain.

Price protection of milk is only part of the solution to protecting the dairy industry.

3. List of Recent Publications

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- Bhide MR, Mucha R, Mikula I Jr, Kisova L, Skrabana R, Novak M, Mikula I Sr, 2009. Novel mutations in TLR genes cause hyporesponsiveness to *Mycobacterium avium* subsp. *paratuberculosis* infection. *BMC Genet.* 10: 21.
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- Chow JY, Wu L, Yew WS, 2009. Directed evolution of a quorum-quenching lactonase from *Mycobacterium avium* subsp. *paratuberculosis* K-10 in the amidohydrolase superfamily. *Biochemistry.* 48: 4344-4353.
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- Dimareli-Malli Z, Stevenson K, Sarris K, Sossidou K, 2009. Study of microbiological and molecular typing aspects of paratuberculosis in sheep and goats in northern Greece. *Transbound Emerg Dis.* 56: 285-290.
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- Elzo MA, Rae DO, Lanhart SE, Hembry FG, Wasdin JG, Driver JD, 2009. Association between cow reproduction and calf growth traits and ELISA scores for paratuberculosis in a multibreed herd of beef cattle. *Trop Anim Health Prod.* 41: 851-858.
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- Foddai A, Elliott CT, Grant IR, 2009. Optimization of a phage amplification assay to permit accurate enumeration of viable *Mycobacterium avium* subsp. *paratuberculosis* cells. *Appl Environ Microbiol.* 75: 3896-3902.
- Fortea Ormaechea JI, Gisbert JP, Marín-Jiménez I, 2009. [Role of *Mycobacterium avium paratuberculosis* in the etiopathogenesis of Crohn's disease.]. *Gastroenterol Hepatol.* 32: 353-363. (In Spanish)
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