

# **The Paratuberculosis Newsletter**

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## Table of Contents

### 1. IAP BUSINESS

Open Access publication subsidy .....	19
<i>12<sup>th</sup> International Colloquium on Paratuberculosis</i> .....	20
<i>IAP Book Purchases</i> .....	21

### 2. SHORT SCIENTIFIC REPORTS

<i>Analysis of single nucleotide polymorphism (SNP) in Toll-like receptor by Tetra ARMS PCR</i> .....	22
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### 3. LIST OF RECENT PUBLICATIONS..... 23

**DEADLINE FOR NEXT ISSUE: 15 August 2013**

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Søren Saxmose Nielsen  
Editor

## **1. IAP Business**

### **Open Access publication subsidy**

The appearance of the Open Access publication system can help the IAP to better fulfill its main objective of promoting and spreading the knowledge on paratuberculosis. Although this system has increasingly become a business that is posing a higher pressure to publish on researchers with some risk of decreasing the quality of the material being published, it still is a way to make research available to less wealthy societies that should help their scientists to stay current in the continuous flux of newly generated information. This perspective is fully in line with other IAP policies like the Helping Hand awards and has been approved by the Board of Directors, as well as discussed in the last General Membership meeting. In order to take advantage of this system regarding the costs of maintaining the highest possible scientific standards while putting to work the funds collected by the IAP, the following rules have been established.

IAP can pay one Open Access publication fee for papers on paratuberculosis according to the following terms:

- 1) The paper has been accepted by a peer-reviewed Open Access journal in English and both a copy of the paper and of the invoice is sent to the IAP. Priority will be given to journals in order of last published impact index.
- 2) Only one paper per group and year will be subsidized. A paper will be considered from a different group in the same year if it has: a) different senior author (generally the one signing last, with the higher number of papers and/or with higher position in the institution), and b) no more than half the authors signed a previously funded paper.
- 3) At least one among the first, second or the senior authors must be a member of the IAP in good standing.
- 4) Applications are accepted until an IAP fund of US\$10.000 per year is exhausted in a first come, first serve schedule with a maximum of US\$1000 per paper.
- 5) A Selection Committee will make the decision on each submitted paper and will establish new rules and policies on any aspect not specified in this guideline. Initially this Committee will be constituted by the Officers of the IAP: President, Vice-president, Secretary-Treasurer and Editor-in-Chief.
- 6) The evaluation will be a continuous process that will be applied to all the applications submitted every three months until exhaustion of the provided fund.
- 7) Since these publications' copyright remain in the hands of the authors, the IAP might chose to include the subsidized papers in the Paratuberculosis Newsletter. At least the full bibliographic reference of all the subsidized papers will be published in it.

- 8) The IAP would require the following disclaimer to be added to any publication of the winning papers in its own media (The Paratuberculosis Newsletter): The IAP financial support of the Open Access publication does not mean IAP official endorsement of the published contents.
- 9) The call is open since its publication in The Paratuberculosis Newsletter and until otherwise noted in The Paratuberculosis Newsletter. Periodic reminders will also appear in its pages.
- 10) Submission must be sent by email to the Editor-in-Chief of the IAP ([saxmose@sund.ku.dk](mailto:saxmose@sund.ku.dk)) and must include a letter of application, a pdf copy of the published paper or its electronic address and a pdf copy of the publisher invoice.

Ramon A. Juste  
President of the IAP

### ***12<sup>th</sup> International Colloquium on Paratuberculosis***

The 12th International Colloquium on Paratuberculosis will take place in Parma 22-26 June 2014. Visit the official website at: <http://www.icp2014.eu/>



### ***IAP Book Purchases***

The association has a number of past International Colloquium proceedings available for distribution. We currently have the following in stock:

- 8ICP Proceedings – Book
- 8ICP Proceedings – CD-ROM
- 7ICP Proceedings – Book
- 6ICP Proceedings – Book
- 5ICP Proceedings – Book
- 4ICP Proceedings – Book

Proceedings are available FREE to members, but shipping charges of \$15 (USA) or \$35 (outside of USA) will apply. Non-members may purchase the Proceedings for \$25 plus shipping costs.

Furthermore,

The History of Paratuberculosis compiled by Rod Chiodini is available for 50 USD + shipping for members, and \$125 +shipping for non-members.

To order please send an e-mail to Secretary-Treasurer Ray Sweeney at:

[rsweeney@vet.upenn.edu](mailto:rsweeney@vet.upenn.edu)

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The number of proceedings is limited so we operate by first-come-first-served principle. Please place your order no later than 1 April 2012.

Also note that the 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> Proceedings are available on-line at [www.paratuberculosis.info](http://www.paratuberculosis.info).

Starting with the 9<sup>th</sup> ICP, a print version of the Proceedings are no longer produced by IAP. However, print versions of 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> ICP can be purchased at <http://www.proceedings.com/6219.html>

## **2. Short Scientific Reports**

### ***Analysis of single nucleotide polymorphism (SNP) in Toll-like receptor by Tetra ARMS PCR***

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The objective is to study the host genetics in disease susceptibility. The Toll like receptor 2 and 4 genes which are selected based on their potential role in immunity to mycobacterial infection, were analysed for SNP and their potential association with Johne's disease in goat. For SNP discovery and its association with MAP infection, a preliminary study was conducted and blood samples were collected from 46 goats at university research farm, TANUVAS. Genotyping of TLR genes is carried out by Tetra ARMS (amplification refractory mutation system) PCR (Polymerase chain reaction), a rapid, simple, economical, and high throughput methodology for SNP genotyping, which employs two primer pairs to amplify the two different alleles of a SNP in a single PCR reaction. Based on previous studies, the following two SNP are chosen and they are significantly associated with MAP resistance (2008 A/T in TLR2 and 785 A/G in TLR4). The Genomic DNA was extracted from the blood samples by QIAamp DNA mini kit and PCR was carried out and analyzed in 2% agarose gel electrophoresis. Forty six samples were screened for SNP, out of 46 animal, 76% of animal showed polymorphism at 2008 A/T (12 homozygous TT and 23 heterozygous AT) and 54% of animal showed polymorphism at 785 A/G (25 heterozygous AG). These animals (n=46) were screened for MAP infection by PCR targeting insertion sequence genes (IS900, IS1311) and LAMP also performed. Out of 46 goats, 8% of animals showed positivity in all three diagnostic tests and 75% of positive animals showed SNP at 2008A/T and 785 A/G. In conclusion, there is an association between SNP and MAP infection in goat. Those animals showed SNP at given region but showed negative by other diagnostic tests may be kept in segregation for further screening and confirmation by gold standard test like faecal culture since it may prone for Johne's disease in future.

Keywords: Tetra ARMS PCR, Toll like receptor, Single nucleotide polymorphism, QIAamp DNA mini kit

### **3. List of Recent Publications**

- Abendaño N, Sevilla IA, Prieto JM, Garrido JM, Juste RA, Alonso-Hearn M. [Mycobacterium avium subspecies paratuberculosis isolates from sheep and goats show reduced persistence in bovine macrophages than cattle, bison, deer and wild boar strains regardless of genotype.](#) Vet Microbiol. 163:325-34.doi:
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