# **The Paratuberculosis Newsletter**

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An official publication of the International Association for Paratuberculosis

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# **DEADLINE FOR NEXT ISSUE: 15 February 2016**

All contributions should be sent to <a href="mailto:saxmose@sund.ku.dk">saxmose@sund.ku.dk</a>

Søren Saxmose Nielsen Editor

## 1. IAP Business

## The Association launches new interactive mobile friendly website

The International Association for Paratuberculosis launches a new mobile-friendly website. This website is completely hand-coded allowing maximum versatility and utility, and will be the primary mode of interaction with and between the membership.

Below is a brief guide to the public and Member-Only areas of the website. Pay attention on how to login and set your own username and passwords.

This site has not undergone extensive testing and you are likely to encounter some errors. We apologize in advance for any inconvenience any errors create. Please report these errors to the Webmaster. The webmaster's email address is located on the right bottom of each page. Your support in making this website a success is appreciated.

Be sure to read how to login to the Member-Only Area of the website and how to set your own personal username and password.

These instructions are also available on the website. Navigate to Member Discussions and these instructions can be found under Website Feedback.

# WELCOME TO THE WEBSITE OF THE INTERNATIONAL ASSOCIATION FOR PARATUBERCULOSIS

#### http://www.paratuberculosis.net/

This entire website is html 5.0 & CSS 3.0 compliant and mobile friendly, compatible with all major Desktop browsers (Internet Explorer, Google Chrome, Safari, Firefox, Opera) as well as iPad, iPhone, Android, Galaxy, and other mobile devices.

#### Main page

On the top of the page, you have the main menu which guides you through the main aspects of the website. If on a cell phone, click on the horizontal bar on the upper left of your display to see this main menu. This main menu will be available throughout the website as well as the underlying main header picture which will change depending on the page you visit. After the top menu and photos, you have a light blue bar, giving you the option to translate the page into another language, the ability to search the entire website (excluding member section) and the welcome message that will change and notify you that you are logged in. If it says "Welcome Guest" rather than your name, you are not logged in.

Below the light blue area, is a brief description of the Association followed by additional menu items, including items included in the top menus. These are:

**About the Association**. Here you have a brief description of the association and 4 major submenus, including a link to Join the Association.

- Laws & By-Laws. The complete laws & by-laws of the association including a PDF download link.
- **Current Members**. This lists the Officers and Board of Directors of the Association. It also provides the option to view the entire membership list by name or alphabetically by Country. Only names and the Country are provided.
- What is paratuberculosis? A brief introduction to Johne's disease with a link to the Univ. of Wisconsin for further information.

**Join the Association**. This page contains a description of the advantages and benefits of joining the Association followed by a Signup/Join form. All information requested is required. Upon completion, you will be directed to PayPal where payment can be made with almost any credit cards as well as echecks and other payment methods. Once payment is made, immediate access to the full site is provided.

**Upcoming Events**. A listing of upcoming Association events and links for more information. Includes information and links to upcoming Association Colloquia and other meetings of interest to the Association may be found here.

**Publications**. This is a listing of all available Association publications. Includes the quarterly Paratuberculosis Newsletter. The current Newsletter issue is available only to Members of the Association when logged-in. Once the next issue becomes available, the embargoed Newsletter will go into the publically available archives. All Colloquia proceedings are publically available and the option to purchase old colloquia (non-digitized books) and other material is also available.

**Contact the Association.** Directly contact the Board Member representing your particular country or the Secretary of the Association for membership information or if your country does not have a representative on the Board.

**Member Discussions**. This is an area where Association members discuss current news and events and continue discussions from items listed in the Newsletter. Look at what is being discussed by the experts in their respective fields. If you are a guest visitor, you can view most of these discussions, but only members can start a topic or reply to a discussion. If you are interested in contributing your thoughts, either login or join the Association.

**Resources**. This is an area under development and is intended to provide some resources for non-members. Although expected to be expanded in the future, at present it provides access to journal articles by members of the Association that the members has chosen to give public access. Each member has the ability to provide up to 5 articles. This is a place to provide open access to embargo or other of your publications not readily accessible.

# <u>Website – Member Area</u>

## http://www.paratuberculosis.net

#### Accessing the Association Member Area:

### Current Members accessing the website for the first time

Your passwords and login used on the old website will not work. To create new login credentials and enter the members-only website, follow these instructions:

- 1. On top menu (or lower) click on LOGIN.
- 2. Click on Forgot password.
- 3. Enter your email address (the one on file with Association) and Submit
- 4. Follow instructions on screen and in the email
- 5. Click on the link in the email from the Association with a subject line Update your Membership. If you have to cut & paste the link, insure that the unique identifier is part of the link.
- 6. When you click on the link, you will be directed to the Membership Update form. This contains a request for all information that is on the join form. Unless you provide all the information requested, you cannot get into the member side of the website. The information you provide will not be made publically available.
- 7. Complete the form and click UPDATE.
- 8. When complete you will be directed to the Login page login with the username and password you created.

Once logged-in, you will be at an entirely different index page. You will know that you are logged in wherever you are on the website, even public areas; your username will always be displayed.

### Homepage (member homepage)

If you are within 90-days of your dues expiring, you will have a red banner at the top of the page reminding you to renew your dues. The reminder will not go away until you pay your dues. More information below under Dues.

On the Member-Only Homepage, the main image will change as well as the top menu when you are logged in. You now have Home : Members : Events : Discussions : Contact : Publications. The welcome should no longer be guest but be your username with a logout link. Below that you should be 6 sections as described below (plus 2 more you cannot see):

 My Profile & Information. Click on the down arrow and you have a few personal items with a link to "Update My Profile". Click on that and you get all the information the association has on you. You can update your information and save or cancel and go back. Certain items require subroutines to modify (usernames, passwords, emails, etc.). You can upload your picture to your profile and/or add additional information (viewable only by Members).

You can close the window by clicking the up arrow or just leave it open.

 My Publications. Each member can upload 5 scientific articles. Click the down arrow. It probably (should) say "You have no publications on file" and 2 links: "Add publications" and "Edit My Publications". If you have no publications, going to Edit will give you nothing. Click on Add Publications and you will come to a menu. Follow instructions.

This is **NOT** a biographical list of select publications. This is for full articles that you would like to make available to the public as well as the membership. If you do not attach an article, it will not be displayed but will count as 1 of your permitted 5.

- 3. **My Member Discussions**. This will be a listing of all the posts/discussions that <u>you</u> have made in the last 60 days A reminder of what you have been discussing and to keep you involved. You should have a message that you have not done anything and should get involved. Limited to listing of the 5 latest posts with link to see more.
- 4. Latest Association News. This is the same news that is on the front page. Limited to listing of 5 latest posts with link to see more.

- Latest Newsletter Discussions. As stated, this is a listing of the latest discussions related to articles and/or comments made in the Newsletter within the last 60 days. Limited to listing of the 5 latest posts with link to see more.
- 6. Latest Member Discussions. This is the 5-top latest news of the discussion forum, from any and all topics in the last 30 days. As with others, limited to listing of 5 posts with link to see more.
- 7. **Board Discussions**. If you are a member of the Board of Directors, there will be a section which will display discussions among the Board of Directors over the last 90-days. If you are not a member of the Board of Directors, you will not see this link.

Below the above section, you have some large menus as you did in the public area. These sections are:

**Pay Dues**. Here you can pay your dues. If you click on this link, it will tell you when your dues are due.

Your dues will be renewed for 1-year at the time of your renewal. If you allow your dues to expire, logging-in will redirect you to the Dues Payment page and you will not be able to navigate the member website until your dues are paid. You will also be responsible for paying all arrears which will be calculated by the website.

**Email notice**. At 90 days, you will receive an email reminding you that your dues are almost due. You will get another email notice at 60 days, at 30 days, and then a final email letting you know that access to the Member Section is now restricted. You can stop these reminders by simply paying your dues.

There are options to pay multiple years with discounts for multi-year membership payment. You can pay your dues at any time. Regardless of when you pay or for how long, one-year (or multiple) will be added to your current expiration date. Membership now works the same way as a magazine subscription except that if your membership expires you will be required to make up all arrears.

Upcoming Events. This is the same as the Public Side.

**Publications**. This is similar to the Public Side except for one minor difference. If you view the page while you logged in, everything works and you can download the latest version of the Newsletter and all archives. BUT, if you are not logged in or a guest (non-member), you will not be able to view or download the latest Newsletter version. A "(4-month embargo)" appears instead of the "View Current Issue". Guests will still be able to view all archives, just not the most current issue. This will automatically switch after 4-months or whenever the next issue appears, whatever comes first.

All available digital Colloquia Proceedings are available here as well as published bound copies of old proceedings and other publications.

**Contact Association Members**. This is the same link as the "Members" link in the top menu.

Here you can find all the information to contact other members or find out about them. You do not need the full last name but something close so search for "chio" will return all members with the term "chio" in their last name.

If you click on "View Member Details" you can see all the information the member has provided the Association including contact information, interests, etc., that the member provided in his/her MyProfile. This information is ONLY available to members. Nonmembers or members not logged in cannot see or otherwise access this information.

**Member Discussions**. This is identical to what you see on the public side EXCEPT that if you are logged in you can respond to a post, start your own discussion, etc. You will notice that you are logged in by your username in the upper right corner. Also, click on any topic and you will see the ability to click on "New Topic" and clicking on a topic you will see "Post Reply". All of these features are not visible or available to a non-logged-in guest.

**Member Resources**. This is blank (under construction). This area is available for expansion. Have an idea? Post it in the Discussion Panel under Website Feedback and see if other members agree. If it is an idea that is endorsed by other members, it will be added to the website.

Give us some feedback on the website

# The growth of knowledge depends entirely upon disagreement (K. Popper)

Ramon A. Juste President

Since the letter Rod Chiodini published in the last newsletter is fully in the line of thought of the illustrious epistemologist, I do not think that we should start a long controversy in this Newsletter, but that the IAP should take note of those disagreements and act in consequence. However, I think that his questions deserve a short comment to make it clear that the disagreements have been fully taken in consideration.

<u>Honorary Member of the Board of Directors.</u> This status is not defined in the IAP By-Laws and there is no record of creating it as an amendment or otherwise. However, it is certainly an issue that can be discussed by the Governing Board.

<u>Open Access Publication Subsidy.</u> I came up with this idea, explained it and got it approved. I see it more as a statement supporting Open Access publication as a way to spread knowledge. However, not all can afford it and the subsidy may benefit those that have fewer resources.. Anyway, it can encourage publishing in research systems that have very tight budgets. It had been discussed within the Governing Board since early 2011. Rules have been changed and published to fix some the initial shortcomings. I still think it is easier and more ethical to give public access to information that has been paid with public funds. Actually, some funding agencies require Open Access publishing of the funded research. Response from busy authors is not always as straightforward as Rod makes it look, especially for researchers without a name.

<u>Graduate Student Grants Program and Committee</u>. I personally do not see this easy to run. I think there are local funding agencies that are covering this ground.

<u>Material and Data presented at any IAP meeting must go with full disclosure</u>. I personally will feel more comfortable with this, but I also understand that there might be commercial interests that some authors need to be protected at a given time. <u>Creation of a Membership Committee to identify and recruit prospective members</u>. It is a

good idea. It might need the effort of some members.

<u>Modification of the fee structure of the Association</u>. The IAP is not a commercial undertaking, I personally am willing to pay a moderate fee to keep it running and not because I want to take advantage of a bargain. I do not think that we will get more people interested in sustaining the association by making discounts. Establishing a date of payment was a condition for easier management of due collection. That can be now improved with a new dues payment system in the IAP website.

As a consequence, the following proposals will be included both in the next Governing Board and General Meeting:

To abolish the Open Access Subsidy.

To establish the Graduate Student Grants Program be placed on the Agenda of the next Executive and General meeting of the Association.

To create a Graduate Student Grants Program Committee.

To adapt a policy that all material and data presented at any Meeting of the Association must be presented with full disclosure.

To create a Membership Committee to identify and recruit prospective members of the Association.

To re-evaluate the membership fee structure as follows:

- One year Membership: \$50.00
- Two Year Membership: \$90.00
- Three Year Membership: \$120.00
- One Year Student Membership: \$25.00

To allow to pay fees anytime during the year and run for a full year from the date of payment.

To forbid to join the Association for the sole purpose of obtaining member pricing for Colloquia.

To require a delinquent member to pay all dues in arrears when renewing an existing membership.

To pay a \$10.00 late fee for anyone who is more than 60 days in arrears.

# 13<sup>th</sup> International Colloquium on Paratuberculosis

The 13<sup>th</sup> International Colloquium on Paratuberculosis will take place in Nantes, France, on 20-24<sup>th</sup> of June 2016. Please follow updates on the colloquium website: www.icp2016.eu or https://colloque.inra.fr/icp2016



13<sup>th</sup> International Colloquium on Paratuberculosis

20 - 24 June 2016 Nantes, France

www.icp2016.eu

Abstract submission deadline is 31<sup>st</sup> of January 2016

The preliminary programme is online, and registration is open.

### 2. List of Recent Publications

- Arru G, Caggiu E, Leoni S, Mameli G, Pugliatti M, Sechi GP, Sechi LA. <u>Natalizumab</u> <u>modulates the humoral response against HERV-Wenv73-88 in a follow-up study of</u> <u>Multiple Sclerosis patients</u>. J Neurol Sci. 357:106-8.
- Beaunée G, Vergu E, Ezanno P. <u>Modelling of paratuberculosis spread between dairy cattle</u> <u>farms at a regional scale</u>. Vet Res. 46:111.
- Botsaris G, Swift BM, Slana I, Liapi M, Christodoulou M, Hatzitofi M, Christodoulou V, Rees CE. <u>Detection of viable *Mycobacterium avium* subspecies *paratuberculosis* in <u>powdered infant formula by phage-PCR and confirmed by culture</u>. Int J Food Microbiol. 216:91-4.</u>
- Carlos P, Roupie V, Holbert S, Ascencio F, Huygen K, Gomez-Anduro G, Branger M, Reyes-Becerril M, Angulo C. <u>In silico epitope analysis of unique and membrane associated</u> <u>proteins from *Mycobacterium avium* subsp. *paratuberculosis* for immunogenicity and <u>vaccine evaluation</u>. J Theor Biol. 384:1-9.</u>
- Espejo LA, Zagmutt FJ, Groenendaal H, Muñoz-Zanzi C, Wells SJ. <u>Evaluation of</u> performance of bacterial culture of feces and serum ELISA across stages of Johne's disease in cattle using a Bayesian latent class model. J Dairy Sci. 98:8227-39.
- Galiero A, Fratini F, Mataragka A, Turchi B, Nuvoloni R, Ikonomopoulos J, Cerri D. <u>Detection</u> of <u>Mycobacterium avium subsp. paratuberculosis in cheeses from small ruminants in</u> <u>Tuscany</u>. Int J Food Microbiol. 217:195-199.
- Ghosh P, Shippy DC, Talaat AM. <u>Superior protection elicited by live-attenuated vaccines in</u> <u>the murine model of paratuberculosis</u>. Vaccine. 2015 Nov 4. [Epub ahead of print].
- Holbert S, Branger M, Souriau A, Lamoureux B, Ganneau C, Richard G, Cochard T, Tholoniat C, Bay S, Winter N, Moyen JL, Biet F. <u>Interferon gamma response to</u> <u>Mycobacterium avium subsp. paratuberculosis specific lipopentapeptide antigen L5P in</u> <u>cattle</u>. Res Vet Sci. 102:118-21.
- Jafarzadeh SR, Johnson WO, Gardner IA. <u>Bayesian modeling and inference for diagnostic</u> <u>accuracy and probability of disease based on multiple diagnostic biomarkers with and</u> <u>without a perfect reference standard</u>. Stat Med. 2015 Sep 28. [Epub ahead of print].
- Kaevska M, Videnska P, Vasickova P. <u>Changes in microbial composition of wastewater</u> <u>during treatment in a full-scale plant</u>. Curr Microbiol. 2015 Oct 24. [Epub ahead of print].
- Katsafadou AI, Tsangaris GT, Billinis C, Fthenakis GC. <u>Use of proteomics in the study of</u> <u>microbial diseases of small ruminants</u>. Vet Microbiol. 181:27-33.
- Lacasta D, Ferrer LM, Ramos JJ, González JM, Ortín A, Fthenakis GC. <u>Vaccination</u> <u>schedules in small ruminant farms</u>. Vet Microbiol. 181:34-46.
- Laurin E, McKenna S, Chaffer M, Keefe G. <u>Sensitivity of solid culture, broth culture, and real-</u> <u>time PCR assays for milk and colostrum samples from *Mycobacterium avium* ssp.</u> <u>paratuberculosis-infectious dairy cows</u>. J Dairy Sci. 98:8597-8609.

- Leite FL, Eslabão LB, Pesch B, Bannantine JP, Reinhardt TA, Stabel JR. <u>ZAP-70, CTLA-4</u> and proximal T cell receptor signaling in cows infected with *Mycobacterium avium* <u>subsp. paratuberculosis</u>. Vet Immunol Immunopathol. 167:15-21.
- Li L, Katani R, Schilling M, Kapur V. <u>Molecular epidemiology of *Mycobacterium avium*</u> <u>subspp. paratuberculosis on dairy farms</u>. Annu Rev Anim Biosci. 2015 Nov 2. [Epub ahead of print].
- Mameli G, Madeddu G, Cossu D, Galleri G, Manetti R, Babudieri S, Mura MS, Sechi LA. <u>Immune response induced by Epstein-Barr virus and *Mycobacterium avium* subsp.</u> <u>paratuberculosis peptides in current and past infectious mononucleosis: a risk for</u> <u>multiple sclerosis?</u> Eur J Neurol. 2015 Oct 9. [Epub ahead of print].
- McNees AL, Markesich D, Zayyani NR, Graham DY. <u>Mycobacterium paratuberculosis as a</u> <u>cause of Crohn's disease</u>. Expert Rev Gastroenterol Hepatol. 2015 Oct 16. [Epub ahead of print].

Monif GR. The Hruska postulate of Crohn's disease. Med Hypotheses. 85:878-81.

- Mortier RA, Barkema HW, De Buck J. <u>Susceptibility to and diagnosis of *Mycobacterium* <u>avium subspecies paratuberculosis infection in dairy calves: A review</u>. Prev Vet Med. 121:189-98.</u>
- Möbius P, Hölzer M, Felder M, Nordsiek G, Groth M, Köhler H, Reichwald K, Platzer M, Marz M. <u>Comprehensive insights in the *Mycobacterium avium* subsp. *paratuberculosis* genome using new WGS data of sheep strain JIII-386 from Germany. Genome Biol Evol. 2015 Sep 17. [Epub ahead of print].
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- Nazareth N, Magro F, Machado E, Ribeiro TG, Martinho A, Rodrigues P, Alves R, Macedo GN, Gracio D, Coelho R, Abreu C, Appelberg R, Dias C, Macedo G, Bull T, Sarmento A. Prevalence of *Mycobacterium avium* subsp. *paratuberculosis* and *Escherichia coli* in <u>blood samples from patients with inflammatory bowel disease</u>. Med Microbiol Immunol. 204:681-92.
- Nazareth N, Magro F, Appelberg R, Silva J, Gracio D, Coelho R, Cabral JM, Abreu C, Macedo G, Bull TJ, Sarmento A. <u>Increased viability but decreased culturability of</u> <u>Mycobacterium avium subsp. paratuberculosis in macrophages from inflammatory</u> <u>bowel disease patients under Infliximab treatment</u>. Med Microbiol Immunol. 204:647-56.
- Oh SY, Mead PJ, Sharma BS, Quinton VM, Boermans HJ, Smith TK, Swamy HV, Karrow NA. Effect of Penicillium mycotoxins on the cytokine gene expression, reactive oxygen species production, and phagocytosis of bovine macrophage (BoMacs) function. Toxicol In Vitro. 2015 Sep 21. [Epub ahead of print].
- Okagawa T, Konnai S, Nishimori A, Ikebuchi R, Mizorogi S, Nagata R, Kawaji S, Tanaka S, Kagawa Y, Murata S, Mori Y, Ohashi K. <u>Bovine immunoinhibitory receptors contribute</u> to the suppression of *Mycobacterium avium* subsp. *paratuberculosis*-specific T-cell responses. Infect Immun. 2015 Oct 19. [Epub ahead of print]

- Otsubo S, Cossu D, Eda S, Otsubo Y, Sechi LA, Suzuki T, Iwao Y, Yamamoto S, Kuribayashi T, Momotani E. <u>Seroprevalence of IgG1 and IgG4 class antibodies against</u> <u>Mycobacterium avium subsp. paratuberculosis in Japanese population</u>. Foodborne Pathog Dis. 12:851-6.
- Park KT, Seo KS, Godwin NA, Van Wie BJ, Gulbahar MY, Park YH, Davis WC. <u>Characterization and expression of monoclonal antibody-defined molecules on resting</u> <u>and activated bovine αβ, γδ T and NK cells</u>. Vet Immunol Immunopathol. 168:118-30.
- Pieper L, Sorge US, DeVries T, Godkin A, Lissemore K, Kelton D. <u>Comparing ELISA test-positive prevalence, risk factors and management recommendations for Johne's</u> <u>disease prevention between organic and conventional dairy farms in Ontario, Canada</u>. Prev Vet Med. 2015 Sep 10. [Epub ahead of print]
- Pieper L, Sorge US, DeVries TJ, Godkin A, Lissemore K, Kelton DF. <u>Evaluation of the</u> <u>Johne's disease risk assessment and management plan on dairy farms in Ontario,</u> <u>Canada</u>. J Dairy Sci. 98:6792-800.
- Sharma BS, Abo-Ismail MK, Schenkel FS, You Q, Verschoor CP, Pant SD, Karrow NA. <u>Association of TLR4 polymorphisms with *Mycobacterium avium* subspecies</u> <u>paratuberculosis infection status in Canadian Holsteins</u>. Anim Genet. 46:560-5.
- Shin MK, Park H, Shin SW, Jung M, Lee SH, Kim DY, Yoo HS. <u>Host transcriptional profiles</u> <u>and immunopathologic response following *Mycobacterium* avium subsp. <u>paratuberculosis Infection in Mice</u>. PLoS One. 10:e0138770.</u>
- Smith RL, Schukken YH, Gröhn YT. <u>A new compartmental model of *Mycobacterium avium*</u> <u>subsp. paratuberculosis infection dynamics in cattle</u>. Prev Vet Med. 2015 Oct 21. [Epub ahead of print].
- Sun WW, Lv WF, Cong W, Meng QF, Wang CF, Shan XF, Qian AD. <u>Mycobacterium avium</u> subspecies paratuberculosis and Bovine Leukemia Virus seroprevalence and associated risk factors in commercial dairy and beef cattle in Northern and <u>Northeastern China</u>. Biomed Res Int. 2015:315173.
- Taka S, Gazouli M, Sotirakoglou K, Liandris E, Andreadou M, Triantaphyllopoulos K, Ikonomopoulos J. <u>Functional analysis of 3'UTR polymorphisms in the caprine SLC11A1</u> <u>gene and its association with the *Mycobacterium avium* subsp. *paratuberculosis* <u>infection</u>. Vet Immunol Immunopathol. 167:75-9.</u>
- Thirunavukkarasu S, de Silva K, Begg DJ, Whittington RJ, Plain KM. <u>Macrophage</u> polarization in cattle experimentally exposed to *Mycobacterium avium* subsp. *paratuberculosis*. Pathog Dis. 73. pii: ftv085.
- Timms VJ, Hassan KA, Mitchell HM, Neilan BA. <u>Comparative genomics between human and</u> <u>animal associated subspecies of the *Mycobacterium avium* complex: a basis for <u>pathogenicity</u>. BMC Genomics. 16:695.</u>

- Verdugo C, Toft N, Nielsen SS. <u>Within- and between-herd prevalence variation of</u> <u>Mycobacterium avium subsp. paratuberculosis infection among control programme</u> <u>herds in Denmark (2011-2013)</u>. Prev Vet Med. 121:282-7.
- Waddell LA, Rajić A, Stärk KD, McEWEN SA. <u>The zoonotic potential of *Mycobacterium*</u> <u>avium ssp. paratuberculosis: a systematic review and meta-analyses of the evidence</u>. Epidemiol Infect. 143:3135-57.

Windsor PA. Paratuberculosis in sheep and goats. Vet Microbiol. 181:161-9.

Wolf R, Barkema HW, De Buck J, Orsel K. <u>Factors affecting management changes on farms</u> participating in a Johne's disease control program. J Dairy Sci. 98:7784-96.