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JDIP News

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JDIP News is published periodically to enhance intramural communications and ensure that JDIP participants and stakeholders are updated on news of relevance to our community.

Please direct any comments, contributions and suggestions via email to: Vivek Kapur, JDIP Program Director, at vkapur@psu.edu

National Institute of Food and Agriculture

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President Obama Announces Appointment of Dr. Sonny Ramaswamy as Director of the USDA's National Institute of Food and Agriculture (NIFA)

By: Peter Johnson, DVM, Ph.D.

Dr. Ramaswamy has served as the Dean of the College of Agricultural Sciences at Oregon State University since 2009 and also serves as Director of the Oregon Agricultural Experiment Station. Previously, he was the Associate Dean of Purdue's College of Agriculture and directed the University's agricultural research programs from 2006 to 2009. Prior to joining the Purdue faculty in 2006, Dr. Ramaswamy was head of the Department of Entomology at Kansas State University from 1997 to 2006, where he held the title of Distinguished Professor. He also served on the faculty of Mississippi State University, was a research associate at Michigan State University, and is a fellow of the American Association for the Advancement of Science and the Entomological Society of America. Dr. Ramaswamy earned his B.S. and M.S. in entomology from the University of Agricultural Sciences in Bangalore, India, and earned his PhD in Entomology from Rutgers University. Among colleagues and stakeholders, he is known as an outstanding science communicator.

11th ICP – The Science

By Kenneth Olson, Ph.D.

The 11th International Colloquium on Paratuberculosis (ICP) held February 5-10, 2012, attracted 297 participants from 49 nations to Sydney, Australia to discuss the latest research findings on the disease, its causative agent *Mycobacterium avium* subspecies *paratuberculosis (MAP)* and programs being used to control it. Participants included researchers, producers and industry representatives. JDIP was pleased to be able to facilitate participation by a number of young scientists, who made presentations at the meeting, by providing travel awards that covered meeting registration and part of their travel expenses. The following recipients were selected through a peer review process:

- Bikash Bhattari (Texas A&M Univ. - USA) *
- Laura Bradner (Iowa State Univ. - USA)
- Brooke Dobson (Univ. of Otago - New Zealand)
- Elise A. Lamont (Univ. of Minnesota - USA) **
- Rienske Mortier (Univ. of Calgary - Canada)
- Mohamed A. Osman (Iowa State Univ. - USA)
- Robert Wolf (University of Calgary - Canada)

* Helping Hand Fellowship Recipient
** Richard Merkal Memorial Fellowship Recipient

In addition to the JDIP Travel Awards, partial scholarships were provided to Bikash Bhattarai, Texas A&M University (USA) and Dr. Jagdip Singh Sohal, Canadian Food Inspection Agency, St. Hyacinthe, Canada, to facilitate their participation in the Pre-ICP workshop on Bayesian tools in the control of Paratuberculosis.

This year, two hundred and forty oral and poster presentations were made during the scientific sessions. Topic areas included diagnostics, genomics, immunology, control programs, public health concerns and many more. Several international research consortia, including the Johne's Disease Integrated Program (JDIP) in the US, Para TB Tools the European Union, and the Johne's Disease Research Consortia of New Zealand, have developed multidisciplinary teams which have leveraged available resources to effectively move the research agenda forward. All do face funding challenges as they move forward.

One reason for world-wide interest and concern relative to Johne's are the still unresolved questions related to human health impacts. Conference presentations confirmed that livestock producers incur significant costs from the disease, but provided no final answers on human health issues. Several papers did provide additional insights and possible reasons for concern. This may be part of the reason why when asked near the end of the conference; approximately 10% of those present indicated they believe MAP to "definitely be zoonotic" and 90% said "potentially zoonotic."

An area of increased concern is the presence of MAP in infant formula worldwide. Cyprus and UK workers reported finding live MAP in 9.4% of the commercial samples they tested and MAP DNA in 21.9%. This was from a relatively small number of samples (35), but they came from 11 different formula producers. Given the susceptibility of neo-natal animals of multiple species to MAP, this raised concerns. Some nations are gearing their programs toward being able to assure international buyers that the infant formula they produce utilizes milk that comes from very low risk herds.

Work from Japan, using a mouse model showed that MAP antigen alone (dead MAP) can cause intestinal inflammation that closely resembles that associated with Crohn's disease. If confirmed by other workers, this would increase concern because even if pasteurization effectively killed MAP there would still be a risk of infection. Workers from the University of Minnesota demonstrated that MAP is capable of producing spores. This may be one way the organism survives pasteurization. In addition, Norwegian workers found from biopsy samples taken from patients with active Crohn's disease, they had

many cells that would react to MAP and trigger a cellular immune response of the type that leads to the type of intestinal inflammation associated with Crohn's.

Survey work from Argentina, Australia, Brazil, Cameroon, Canada, Chile, India, Iran, Korea, New Zealand, the US and several European countries documented the presence of MAP in a variety of species and products. New research tools are providing insights into the organism and why it is so challenging to address, but also ways that we may more effectively deal with it in the future. Genotyping has shown that strains isolated from Crohn's patients are consistent with bovine strains. It has also shown that there are frequently multiple strains on a farm. This may be a reason that vaccination and control programs face challenges. What is effective against one strain may not work against another that is present at the same location. As we look at ways to deal with the disease, there is work from several countries on improved diagnostics and vaccines. Breeding programs may also play a role. Researchers from New Zealand verified breed differences in resistance to infection for farmed deer. Work in cattle and other species is progressing and may play a role in the future. One diagnostic tool that seemed intriguing is a "Lab on a chip" that was reported by workers from Tennessee. The work, funded in part by JDIP, shows promise for an on-site detection tool for Johne's and potentially other diseases. Other work shows promise of earlier detection of positive animals. Many challenges remain, but progress is being made on a variety of fronts.

Producer programs from several countries were highlighted. All have a strong emphasis on education as well as the use of risk assessments and management plans (RAMP) and milk ELISA testing is widely used. Most countries, like the US, are seeking to control the disease and limit its spread. Japan appears to be the most aggressive in seeking to eradicate the disease, but in Holland processors are making annual testing and culling compulsory for farmers supplying milk. Some programs, like the one in Ontario, Canada provide an incentive for culling positive animals. The Ontario program, which is funded jointly by industry and government, does subsidize testing as long as specific requirements are met. Producers must test all lactating animals, complete a RAMP and submit a copy to the program administrator. In addition, all high titer cows must be removed from the population, meaning they cannot go to another herd or into the food chain.

During the meeting, results from project on demonstration herds in Minnesota, Texas and Ontario were presented. They showed that following recommended management practices does work. Clinical cases and prevalence estimates are reduced. The primary management focus areas are calving areas, calf rearing and limiting entry to the herd of animals from high risk herds. A variety of educational tools are being provided. A web based system (My Healthy Herd), that addresses Johne's disease and other infectious disease is being provided in Great Britain. Visit http://www.myhealthyherd.co.uk/ to see what it is like. A program that will be available shortly in the US was introduced. JD RAP will provide producers with a introduction to the risk assessment process, allowing input of data that will customize it to their operation. It will be available by early summer 2012. We also shared additional information with about JDIP, our activities and plans through a display in the trade show.

For more information on the meeting, visit the website of the International Association for Paratuberculosis http://www.paratuberculosis.info . Proceedings from the 11th ICP, as well as earlier colloquia and additional Johne's related information are available in the publications area of site. The next ICP will be held June 22 to 26, 2014 in Parma, Italy.

11th ICP – Social Events and Tours

By Kenneth Olson, Ph.D.

In addition to the scientific information gained at the meeting, the opportunity to network with other professionals with an interest in Johne's disease from around the world and see more of the area where the meeting is being held are major attractions of the ICP. This year's meeting offered multiple opportunities for both. The meeting began with a reception on campus where old acquaintances were renewed and new ones begun, but the opportunities began prior to the official start of the meeting.

A Saturday tour, for attendees who did not participate in one of the pre-conference workshops, provided an opportunity to see the grounds where the past summer Olympics had been held as the group traveled to the famous Blue Mountains that form a barrier between the coastlands of New South Wales and the interior. The "Three Sisters" formation, the view of the valley and a ride on the world's steepest incline rail were highlights of the tour. A Sunday morning tour provided an opportunity to see the Sydney harbor, opera house, Harbor Bridge and some of the area beaches.

During the meeting, a scientific session on the interface with wildlife was held at the Taronga Zoo. There was also an opportunity to tour the zoo following the presentations. The return to Sydney was via a harbor cruise and reception that provided opportunities for conversation as well as seeing the sights around the harbor.

A post conference tour provided an opportunity to see other dairy and animal health innovations. The New South Wales Centre for Animal and Plant Biosecurity, located on the Elizabeth Macarthur Agricultural Institute, has been updated and expanded to provide a state of the art diagnostic lab for the state. On the same property, we visited their dairy experimental farm that has in operation a prototype robotic, rotary parlor that is used to milk their grazing herd of about 250 cows. It appeared to be working effectively. They are working with a major equipment company and expect this type of parlor to be in commercial use in the near future.

Pre-ISVEE Workshop: Mathematical and Epidemiological Modeling of Endemic Infectious Disease – A Hands-On Workshop

Thursday, August 16 - Saturday, August 18, 2012

General information

This workshop is aimed at epidemiologists with an interest in combining analysis of field observations with mathematical modeling. The workshop uses methods and examples that are based on data from field studies and are all based on published materials. The objective of the workshop is to show the participants the connection between observations from the field and mathematical models. The workshop will be using the observational data and apply mathematical modeling to obtain a better understanding of the infection dynamics of endemic infectious diseases. Throughout the workshop, lectures and practicals will be used to communicate the key concepts. All practicals are available in either Modelmaker or Berkeley Madonna. Free versions of this software will be made available to all participants.

Workshop specifications

We would expect to have between 15 and 25 participants in the course. The duration of the workshop will be three days. We will be providing all the software and the data to work with. Participants are expected to bring their own laptop computer.

Workshop contents

Day 1 Introduction to mathematical modeling. The importance of modeling in analyzing field data. Basic examples of SIR models using field data. Application of models in modeling software. Conceptual development of mathematical models. Examples include BHV1 and Salmonella.

Day 2 Introduction of more advanced modeling concepts. The use of deterministic and stochastic models. Fitting stochastic models using basic modeling software. Examples of deterministic and stochastic models using field data. Examples include Salmonella and MAP infections.

Day 3 Use of mathematical modeling for different data collection levels. Models of the immune response using bacterial and immune cells. Application of field and experimental data to mathematical modeling. Examples includes Mastitis models and meta-population models of antimicrobial resistance.

The general schedule of the course will be:

08:30 - 09:00: Registration (Day 1 only)
09:00 - 10:30: Lesson 1
10:30 - 11:00: Coffee break
11:00 - 12:30: Practical 1
12:30 - 13:30: Lunch break
13:30 - 15:00: Lesson 2
15:00 - 15:30: Coffee break
15:30 - 17:00: Practical 2

Registration fee: Registration fee is set at 515 Euro per participant

History of the workshop

We have offered the workshop before at Cornell University in 2009, 2010 and 2011. We have offered the workshop at the University of Helsinki in 2009 and the University of Oslo on 2010. In each of these courses, there were approximately 20 participants. The course has evolved throughout the years and contains more and more advanced materials. The course materials have substantially improved over time

Short biographies and contact information of all the workshop organizers

Contact information:
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Dr. Ynte Schukken (yhs2@cornell.edu) is a Professor of Epidemiology and Herd Health in the Department of Population Medicine and Diagnostic Sciences. He is also the director of Quality Milk Production Services at Cornell University. Dr. Schukken received his DVM from the University of Utrecht in 1985, his M.Sc. from Cornell University in 1987, and his Ph.D. in 1990 from the University of Utrecht. He has published widely in the field of veterinary epidemiology and herd health in dairy cattle. Dr Schukken's research interests include 1) udder health, food safety and milk quality in well managed dairy herds; 2) understanding population dynamics of infectious diseases in animal populations; and 3) application of epidemiological, statistical and mathematical methods to animal disease research. The emphasis in his research is on a combination of statistical/mathematical approaches with strong biological and observational data.

Dr. Yrjö Gröhn (ytg1@cornell.edu) is a Professor of Epidemiology and the chair for the Department of Population Medicine and Diagnostic Sciences, Cornell University. His research interests have evolved from studies of basic metabolism in ruminants and genetics to veterinary epidemiology, economic modeling, and food safety. The two main areas of investigations currently ongoing in his laboratory are: 1) optimizing dairy herd health and management decisions, and 2) mathematical modeling of zoonotic infectious diseases (such as *L. monozytogenes*, *E. coli*, MDR salmonella and paratuberculosis). Both of these areas of research also offer opportunities for training in epidemiological and mathematical modeling, genetic analysis, and economic methods.

Dr. Rebecca Mitchell (rmm37@cornell.edu) is a post-doctoral researcher at the Department of Population Medicine and Diagnostic Sciences, Cornell University. She received her DVM and Ph.D. in Comparative Biomedical Sciences from Cornell University. Her research interests include transmission dynamics of infectious agents, and the effect of host and pathogen heterogeneity. Her post-doctoral research focuses on the effect of multi-strain infections of *Mycobacterium avium* subspecies *paratuberculosis* in dairy herds.

Dr. Zhao Lu (zhaolu@cornell.edu) is a research associate at the Department of Population Medicine and Diagnostic Sciences, Cornell University. He received his Ph.D. in physics from Kent State University. His research interests include the development and application of mathematical and epidemiological approaches to study dynamics and control of infectious diseases in animal and human populations. His research aims to understand the transmission dynamics and persistence of pathogens in host populations and to quantify the effect of control strategies. His current research projects include: (1) modeling the transmission dynamics of *Mycobacterium avium* subsp*. paratuberculosis* and evaluating the effectiveness of MAP control programs in dairy cattle, and (2) Salmonella strain competition in a dairy farm.

Multistate Initiative – Education and Outreach

By: Kenneth Olson, Ph.D.

Much is known about mycobacterial diseases, but the generation of new knowledge relative to the diagnosis, management and control of the diseases is critical if we are to prevent the spread, lower the prevalence and minimize the impact of the diseases in our livestock populations. USDA NAHMS studies and other work, including the National Dairy Producer Johne's survey, have shown that producers are increasingly aware of the diseases, but often lack knowledge relative to their management and control.

Outreach and education efforts are vital components in achieving the objectives of the initiative. The underlying mission of this area is to provide veterinarians, producers of potentially impacted species, state and federal policy makers and other stakeholders with accurate, high quality, up to date, easy to access information and education to assist efforts that will effectively address mycobacterial diseases.

We will use both currently available information that is appropriate and new information generated through this project for that purpose. We will seek to use and enhance existing information distribution systems, but also develop new tools for this purpose. The following are objectives for this area of work:

1. Create an internet portal to provide access to information related to mycobacterial diseases, specifically Johne's disease and bovine TB.
2. Encourage, monitor and increase awareness of the publication of work of initiative collaborators in peer reviewed journals and through other scientific outlets.
3. Enhance and strengthen working relationships and communication links with producer and professional organizations.
4. Provide convenient access to comprehensive, high quality, consistent education materials for veterinarians, producers and others that are developed and reviewed by experts in the field.
5. Leverage existing information/education delivery mechanisms to reach out more comprehensively to target audiences with information about mycobacterial diseases.
6. Reach non-traditional audiences, including policy makers and interested members of the public, with accurate and timely information relative to mycobacterial diseases in livestock and serve as a point of contact for further information needs.

To accomplish the objectives in this area we will:

1. Create an internet portal to provide access to information related to mycobacterial diseases, specifically Johne's disease and bovine TB. Internet access provides the most rapid, cost effective means to sharing information with a widely distributed audience. The site will provide convenient access to information generated through the initiative and seek to be as comprehensive as possible by sharing previously developed information through links to existing sites such as www.jdip.org, www.johnes.org, and www.johnesdisease.org.

2. Encourage, monitor and increase awareness of the publication of work of initiative collaborators in peer reviewed journals and through other scientific outlets. Publication of research results in peer reviewed journals is important to the initiative and those who collaborate in the effort, validating the credibility of the work and making it more widely available. The Education/Outreach team will strongly encourage publication of initiative research in appropriate journals. We will seek to make others in the industry aware of work as it is published and also monitor the publications for work that may be shared with

producers and others through the initiative. Current Johne's efforts have developed a strong international network of scientists and interested professionals, through the International Association for Paratuberculosis (IAP), who are effectively sharing information as they work to address this world-wide disease. Efforts in other nations are also looking to address a wider range of mycobacterial diseases, so this initiative will fit well into expanding international efforts. We will seek to maintain and enhance current working relationships and explore new ones that will allow the most effective use of existing resources.

3. Enhance and strengthen working relationships and communication links with producer and professional organizations. While many good working relationships currently exist, expanding these networks will increase awareness of the initiative, build confidence in the results and help to make them more readily available to our target audiences. It is anticipated that activities in this area will include:
   - Partnering with the Animal Health committee for the Joint Annual Meeting (JAM) of the American Dairy Science Association and the American Society of Animal Science to include specific oral and poster presentation sections for mycobacterial diseases at the JAM. Include as appropriate mycobacterial sessions/symposia in the scientific sessions of the American Association of Bovine Practitioners (AABP), the Association of Veterinary Consultants (AVC) and the American Veterinary Medical Association (AVMA). This will provide an opportunity to cost effectively reach large, very important target audiences in a cost effective manner. It will also assure inclusion of abstracts of the work presented in highly respected journals that are readily available nationally and internationally.
   - Holding "Interest Group" meetings at the JAM, the annual meeting of the American Association of Bovine Practitioners (AABP), the Association of Veterinary Consultants (AVC) and similar meetings to reach extension and industry professionals with interests in this area providing them with information from the initiative, seeking input on current and planned activities and inviting their participation in the initiative.
   - Coordinate preconference seminars, or clinical forums, on a periodic basis at the annual conference of the AABP to reach professionals who are on the farm with timely information and solicit their input on additional needs that the initiative is equipped to address.
   - Facilitate expansion of the National Johne's Work Group (NJWG), currently a subcommittee of the US Animal Health Association (USAHA)'s Johne's Disease Committee, to become a Mycobacterial Disease Work Group, working with the Tuberculosis and other appropriate USAHA committees. It is anticipated that this group would meet annually at the USAHA's annual meeting and "as needed" at the annual meeting of the National Institute for Animal Agriculture (NIAA) to share information and identify additional research and education needs.
   - Partner with relevant organizations in organizing scientific and educational information sessions for producers focused on relevant topics. Potential collaborators include:
     - NCBA Cattlemen's College
     - National Dairy Herd Information Association (NDHIA)
     - World Dairy Expo
     - The Joint Annual Meeting of the National Milk Producers Federation (NMPF), the National Dairy Board (NDB), and the United Dairy Industry Association (UDIA)
     - Dairy and beef breed associations
     - The American Farm Bureau Federation (AFBF)

- Partner with USDA to assist in training programs on related diseases
- Organize, with industry, extension and government agency collaboration, a national symposium on mycobacterial diseases of animals every five years
- Develop and conduct webinar's in "high interest" topics in conjunction with extension and or other industry partners

4. Provide convenient access to comprehensive, high quality, consistent education materials for veterinarians, producers and others. We will seek out and use existing tools such as those currently available at http://ce.vetmed.wisc.edu/Johnes_Disease that are developed and reviewed by experts in the field. Additional information that is needed will be identified and resources/collaborators needed to produce and deliver the material will be identified. Materials will be delivered electronically, but will include supporting material that can be printed locally.

5. Leverage existing information/education delivery mechanisms to reach out more comprehensively to target audiences with information about mycobacterial diseases. We will work actively with trade media and partner with groups like the Johne's Education Initiative (JEI), DAIReXNET, the eXtension Wildlife Damage Management Community of Practice, and the Internet Center for Wildlife Damage Management (ICWDM) in this effort.

6. Reach non-traditional audiences, including policy makers and interested members of the public, with accurate and timely information relative to mycobacterial diseases in livestock and serve as a point of contact for further information needs. Social media tools such as "Linked In" and "Facebook" will be used to reach these audiences. We will seek to partner with and draw on expertise from industry groups to make the most effective use of these tools in a timely manner as this effort moves forward.

JDIP Urges Support for Ag Research Funding

By: Kenneth Olson, Ph.D.

JDIP is not positioned to "lobby" congress, but we recognize the need for funding for agricultural research on Johne's and a host of other issues facing animal agriculture. We believe that if funding is available, JDIP and its members are well positioned and will compete successfully for competitive grants. We also believe that JDIP provides an excellent example of the effective use that has been made of research dollars to address challenges faced by animal agriculture and the need to continue funding for these efforts. We have sought to play a positive role in obtaining funding for research. "Talking Points" that highlight work done through JDIP were developed and shared with USAHA and other partners for their use in their visits to Capitol Hill. Click "HERE" or just go to our home page www.jdip.org to view them. JDIP joined with over 900 organizations and individuals from across the nation in a coalition letter supporting FY13 funding for USDA's food and agricultural Research, Education and Economics (REE) mission. Co-signers included farmers and farmer groups, grocery manufacturers, technology providers, university administrators, scientific organizations, and individual scientists from across the nation. Click "HERE" or just go to our home page www.jdip.org to view the letter.

We have also joined on the AFRI Coalition Letter to Congress supporting the President's FY 2013 budget proposal for AFRI – click HERE or visit our home page to view the letter.

Next Phase of JDIP Community-based Test Evaluation and Sample Repository Project is Underway

By: Ian Gardner, Ph.D.

Screening of cows by the IDEXX serum ELISA has been completed in the 16 Holstein dairy herds (11 infected and 5 presumed non-infected herds, designated as status 4 herds in the test-negative part of the Voluntary Bovine Johne's Disease Control Program) in the project. Herds were located in 5 states (California, Georgia, Minnesota, Pennsylvania, and Tennessee). Of 1817 tested cows, 121 (6.6%) were ELISA positive. Eligible cows for ELISA testing were those in at least their second lactation that were lactating at the time of sample collection and had no clinical signs of paratuberculosis. Milk and feces were collected from ELISA-positive cows in each herd and also from 3 randomly-selected ELISA-negative (control) cows for each positive cow. All samples were aliquoted at the University of Georgia, Tifton laboratory with 30 samples sets of serum, milk and feces for each cow included in the repository. The repository includes 491 fecal/milk/serum sets from cows in infected herds in approximately a 3:1 ratio of ELISA-negative to ELISA-positive cows. From non-infected herds, there are 209 fecal/serum/milk sets and 209 additional serum/milk only sets. Each cow in the repository has information on lactation number and days in milk, in addition to paratuberculosis herd status.

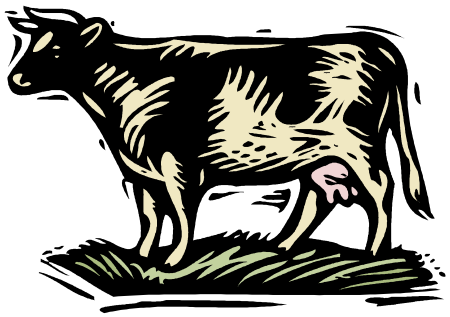
Of the 16 herds in the study, most (n=13) housed cows in freestalls only or in combination with other methods (drylot, pasture, or bedded packs), fed monensin to cows (n=13), and had used serum or milk ELISA for testing cows in prior years (n=14). Two infected herds had no prior herd testing and had based paratuberculosis diagnoses on testing of clinically-affected cows. No herds used paratuberculosis vaccine and caudal fold tuberculin (CFT) testing of cows was done in 2 herds in 2011. Six other herds reported CFT testing between 2004 and 2008.

Samples are expected to be sent to the following laboratories for testing by the end of the first week of May. The labs were selected as successful bidders approximately 12 months ago.

- Johne's Research Lab, University of Pennsylvania - real time PCR (Tetracore) and solid culture (HEYM)
- University of Wisconsin, Madison - liquid culture (MGIT)
- Cornell University Diagnostic Lab - liquid culture (Trek) and qualitative PCR
- Antel Biosystems - milk ELISA

All testing will be done blinded with results returned to the central database, as they become available. All lab testing should be complete by September, when HEYM cultures will be finalized after 16 weeks culture.

The Executive Committee is currently discussing the process, criteria and cost of making samples available to other investigators for evaluation of other paratuberculosis tests. Comments will be solicited from the JDIP membership when the draft plan is finalized, hopefully by early June.



USDA-NIFA: Foundational Program Request for Applications (RFA)

By: Peter Johnson, DVM, Ph.D.

USDA-NIFA plans to release the fiscal year 2013 Agriculture and Food Research Initiative (AFRI) Foundational Program Request for Applications (RFA) on August 15, 2012. NIFA will combine the FY 2012 and 2013 AFRI Foundational Program Request RFA into one FY 2013 RFA. This consolidated RFA combines appropriated FY 2012 and 2013 Foundational Program funds. The AFRI Foundational Program creates a foundation of knowledge in fundamental and applied food and agricultural sciences research. Opportunities for Mycobacterial diseases (including Johne's) are included. Stakeholder feedback associated with previous AFRI offerings include comments that insufficient funds were allocated to the Foundational Program, some of the priority statements within the RFA were too narrowly written, and important areas of science had been omitted from the Foundational Program RFA.

The August 15th release date:

- Adjusts and normalizes the annual business cycle for the AFRI Foundational Program so that the RFA is published before the start of a new fiscal year. This allows the agency to conduct peer review panels, process awards, and obligate funds within the targeted fiscal year, as was done in the past.
- Provides applicants with a more consistent and predictable schedule for the release of future RFAs enhancing the preparation and timely submission of applications. In subsequent years, NIFA would release the AFRI Foundational Program RFA just prior to the start of the fiscal year.
- Improves administrative efficiencies in managing the AFRI Foundational Program during the upcoming fiscal year by optimizing peer panel costs and reducing staff workloads.
- Effectively allows incorporation of recent & ongoing stakeholder input into the development of the combined RFA.
- Is expected to allow individual Foundational programs in FY2013 to fund more awards compared to 2011. With more funding, applicants will have a greater likelihood of receiving an award.

Because the Agriculture and Food Research Initiative's six (6) priority areas are broad, NIFA anticipates no significant changes to the program during its reauthorization in the next Farm Bill. However, NIFA will keep you updated on any program implementation adjustments that may become necessary with passage of the Farm Bill.

Questions may be directed to Effie Baldwin, Management Resource Officer and AFRI Coordinator, at ebaldwin@nifa.usda.gov.

Notes from the Third Paratuberculosis Forum in Sydney, Australia

By: Scott Wells, Ph.D.

Held on February 4, 2012, the meeting was convened by Animal Health Australia as an initiative of the International Dairy Federation with the theme, 'Which strategies work, and which have failed?' The forum provided an opportunity for frank discussion of methods used, progress toward program objectives, and lessons learned in the coordination and management of national and regional Johne's disease programs. There were 10 presentations representing control programs from around the world.

One conclusion from the session was that Johne's disease is a global animal health concern, with variable disease presentation depending on factors including livestock industry structure and management systems employed.

Another conclusion was that national and regional control and eradication programs are at different stages in different countries, and that sharing of disease control experiences has the potential to improve animal health globally. Some countries are exploring options for a future Johne's disease risk management program (New Zealand). Others are beginning Johne's disease awareness and educational programs (United Kingdom). Another is early in the implementation of regional control programs (certain Canadian provinces). Still others have several years of national Johne's disease control program experience with varying success rates (Australia, Denmark, Ireland, Japan, Netherlands, and US). One of the latter countries has experience applying regional zoning as part of their national control program. Through sharing of lessons learned from these experiences, information was gained to support disease control around the world.

S-PAC® – An Added JDIP Benefit

By: Kenneth Olson, Ph.D., PAS

One of the frequently overlooked benefits of JDIP membership is our relationship with the Searchable Proceedings of Animal Conferences (S-PAC). S-PAC, a subscription service provided by the American Dairy Science Association® (ADSA®), is an on-line, user searchable, database of proceedings from many of the top animal conferences in North America and around the world.

Each article is stored individually so that it may be searched in any way you wish. This means that rather than going to 10 sets of proceedings that are sitting on your bookshelf/CD rack and paging through them for information that you need, or checking 15 websites for information that you think may have been presented at a conference, a visit to the S-PAC site allows you to rapidly search all proceedings in the database for the information that you are seeking. A total of 408 proceedings from 43 different conferences are currently available to S-PAC subscribers. Conferences that may be of special interest include:

- The American Association of Bovine Practitioners (AABP)
- The U.S. Animal Health Association (USAHA)
- The International Colloquium on Paratuberculosis (ICP)
- JDIP Annual Conference and New Horizons workshops
- International Congress on Farm Animal Endocrinology
- Western Dairy Management Conference

New conferences and additional proceedings are being added on a regular basis, making S-PAC a tool of ever increasing value. Visit http://spac.adsa.org/ to check S-PAC out. In addition to a full list of conferences currently available, you will find a calendar with information on upcoming conferences and links to websites for many of the conferences. You can “test drive” the system at the special rate of “$5 for 5 days”. This allows you full access to the system as many times as you would like during those five days, and you can sign up for this offer repeatedly. To sign up for the special offer or, if you are ready to add S-PAC to your information tool kit for the coming year, go to the “Subscribe to S-PAC” page and follow the links (that will take you through the “Federation of Animal Science Societies (FASS) e-commerce area) to become an S-PAC subscriber. As a JDIP member, you are eligible to subscribe at the same rate as members of ADSA. To obtain our member rate of $75/year, use our promo code of “JDIPindv”. If you have additional questions about S-PAC, please contact Kenneth Olson at keolson@prodigy.net.

Upcoming Meetings and Events

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June 16-19, 2012
112th General Meeting - ASM
San Francisco, California. USA
http://www.asm.org/index.php/meetings/general-meeting12.html

July 15-19, 2012
2012 JAM (ADSA / ASAS Joint Annual Meeting)
Phoenix, Arizona. USA
http://www.jtmtg.org/2012/

August 4-7, 2012
AVMA Annual Meeting 2012
San Diego, California. USA
http://www.avma.org/

September 20-22, 2012
AABP Annual Conference
Montreal, Quebec, Canada
http://www.aabp.org/

October 2-6, 2012
World Dairy Expo at the Alliant Energy Center of Dane County in
Madison, Wisconsin. USA
http://www.worlddairyexpo.com/

October 18-24, 2012
116th USAHA Annual Meeting
Greensboro, North Carolina. USA
http://usaha.org/Meetings.aspx

October 29-31, 2012
NMPF, NDB, UDIA Joint Annual Meeting
Dolphin Hotel: Orlando, Florida. USA
http://nmpf.org/nmpf-joint-annual-meeting

June 22-26, 2014
12th International Colloquium on Paratuberculosis (ICP)
Parma, Italy
http://www.icp2014.eu/

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JD In Print – Peer Review
Johne's Disease Related Publications

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