

# Scientific program



**Reunión Internacional de  
Rabia en las Américas**  
26-30 de octubre 2014/Cancún, México

**Side event to RITA**

Saturday 25 and Sunday 26, October. Pre REDIPRA 15 meeting (Coordinator: Marco Vigilato). By invitation only.

**Sunday 26, October**

8:00 – 11:00. Sand sculpture contest with the theme of rabies. Entertainment provided by the Institute of Culture of Cancun. Prizes: medals for first, second and third places, and a three-day all-inclusive accommodation for two at the Fiesta Americana Condesa Hotel for first place (not includes air transportation). Judges: Casa de la Cultura, Municipio de Benito Juárez & RITA, Inc.

**Side event to RITA**

14:00 – 15:00. Partners for Rabies Prevention update meeting. Coordinator: Louise Taylor. GARC (Global Alliance for Rabies Control). Meeting open to the public.

18:00 - 19:00

Celebrating the 25th Anniversary of RITA (Coordinator: Joaquín B. Delgadillo Álvarez).

- a. Address by Charles E. Rupprecht. 10 minutes.
- b. Round table: Historical reflections and perspectives on RITA (Moderator: Juan Antonio Montaño Hirose).
  - i. Canada (Dennis Donovan). 10 minutes.
  - ii. United States of America (Charles E. Rupprecht). 10 minutes.
  - iii. Mexico (Jesús Felipe González Roldán). 10 minutes.
  - iv. Brazil (Ivanete Kotait). 10 minutes.

19:00 - 20:00

Opening ceremony.

- c. Technical-commercial exhibition.
- d. Posters.

20:00 - 22:00

- e. Welcome cocktail (Swimming pool).
  - i. Background Mexican music and drinks.

**Monday 27, October**

8:00 – 8:30

# **George Baer Latin American Investigator Award**

**Moderator: Charles E. Rupprecht.**

*First evaluation of DNA vaccine against rabies, based in G5 epitope linked to molecular adjuvant P28.* Guillermo Galvez Romero, Mónica Salas Rojas, Ericka N Pompa Mera & Álvaro Aguilar Setién.

## **Rabies in humans**

**(Coordinator: Alan C. Jackson)**

8:30 – 9:30 (15 minutes each)

1. Epidemiology (Moderators: Ivanete Kotait and Shampur N. Madhusudana).

*Mordedura por perro y de otros mamíferos: una correlación con los casos confirmados de rabia en humanos y perros en México.* Mendoza-Villavicencio Ivonne L, Cabrera-Gaytán David Alejandro & Revuelta-Herrera Martín A.

*Distribución espacial de las mordeduras de perro como factor de riesgo para la transmisión de la rabia humana en el Estado de México.* Medina Torres Imelda, Guadarrama Cruz Luis Octavio, Soto Serrano Gabriela & Reséndiz Tinajero Héctor Hail.

*Human rabies: Trends and challenges.* Cathleen A Hanlon, Michael Niezgoda, Xiaoyue Ma, Pamela Yager, Felix Jackson, Miriam Shiferaw, Ryan Wallace, Jesse Blanton  
*National Rabies Information System (NaRIS).* Raffy A. Deray.

9:30 – 11:00 (15 minutes each)

2. Prophylaxis and treatment (Moderators: Ignacio Antonio Chávez Flores and Rodney Willoughby).

*A new paradigm for rabies pre-exposure prophylaxis? Results of a non-inferiority randomized, controlled, observer-blind study with Rabipur® following a new, accelerated, one-week, intramuscular PrEP regimen.* Jelinek T, Burchard GD, Dieckmann S, Bühler S, Kollaritsch H, Nothdurft HD, Reisinger E, Costantini M, Giesen A, Bosse D, Lattanzi M, Pellegrini M.

*Rabies post-exposure prophylaxis compliance of animal bite patients in San Lazaro Hospital, Manila, Philippines: The San Lazaro Hospital Animal B.I.T.E. (Bite Injury Treatment Experience) study.*  
Don B. Maldo, Jason T. Suquila, Efren M. Dimaano, & Ferdinand S. De Guzman.

*Human rabies survivors: From scientific curiosity to scientific reality.* Madhusudana SN, Reeta Mani, Satish Chandra P, Netravati M, Veeranna MG, Aaron De Souza, Vrajesh Udani, Ashwin YB, & Ashwini Shetty.

*Joining forces: Our global commitment to human rabies elimination.* Michael Atlan, & Joanne Maki.  
*Epidemiology of Rabies-Related Emergency Department Visits in the United States, 2006 – 2010.*  
Shiferaw, M & Blanton, J.

*Development of human monoclonal antibodies for rabies post-exposure prophylaxis.* C.E. Rupprecht, I.V. Kuzmin & W.E. Marissen.

11:00 – 11:30

Coffee break.

11:30 – 12:30

3. Round table on current status of rabies treatment (Moderator: Alan C. Jackson).
  - a) Overview (Alan C. Jackson). 10 minutes.
  - b) Antiviral therapy (Charles E. Rupprecht). 10 minutes.
  - c) Immunotherapy (D. Craig Hooper). 10 minutes.
  - d) Neuroprotective therapy (Alan C. Jackson). 10 minutes.
  - e) Discussion. 20 minutes.

12:30 – 14:30

Lunch.

RITA, Inc. lunch and teleconference meeting. Restaurante Mexicano (by invitation only).

14:30 – 17:00

Poster session.

#### **Side event to RITA**

17:00 – 19:00. North American Management Plan meeting (Coordinator: José Alfredo Gutiérrez Reyes). By invitation only.

Tuesday 28, October

# RITA / WAP Award

**Moderator: World Animal Protection Representative**

8:00 - 8:30



*Skin - an alternate sample for rabies diagnosis in dogs.* Gowri Yale, Reeta Mani PI, Ganesan SN, Madhusudana S, Shankar, Anita Mahadevan, M Vijayabharathi, K Sampada Sanyal & Shaheen Taj.

Dr. Gowri Yale. RITA / WAP Award winner

## Animal rabies

**(Coordinator: Juan Antonio Montaño Hirose)**

8:30 - 10:30 (15 minutes each)

1. Urban rabies (Moderators: Verónica Gutiérrez Cedillo and Dennis Donovan).

*Control de la población canina en municipios de la jurisdicción 7 de Izúcar de Matamoros, Puebla, México, mediante la esterilización temprana en perros y gatos.* Alfredo Mejía Solis.

*Molecular epidemiology of recent rabies “Hot-Spots” in the US.* Ashutosh Wadhwa, Yoshinori Nakazawa, William C. Carson, Lauren Greenberg, Rene E Condori-Condori, Cathleen A. Hanlon & Andres Velasco-Villa.

*Molecular characterization of rabies virus isolated from canids in northern and northeastern region of Brazil.* Débora Nunes de Souza, Pedro Carniel Junior, Carla Isabel Macedo, Rafael de Novaes Oliveira, Helena Beatriz de Carvalho Ruthner Batista, Samira Maria Achkar, & Juliana Galera Castilho.

*Rabia en San Luis Potosí: 23 años de experiencia. 1991-2013.* Raúl Estrada Torres, Marcelo Aranda Álvarez, Juan Carlos Camacho Martínez & José Luis Saldaña Izeta.

*Dog population management in rabies control in India.* Sira Abdul Rahman.

*Toward canine rabies elimination: A health economics assessment of three project sites.* Stephanie Shwiff, Aaron Anderson, Louis H. Nel & Brody Hatch.

*Free-roaming domestic dog population dynamics and rabies vaccination in rural villages near Serengeti national park, Tanzania.* Anna M. Czupryna, Lisa J. Faust, Machunde Bigambo & Joel Brown.

*La Raj Du Chien: Establishing a surveillance system for canine rabies in Haiti.* Ryan M. Wallace, R. Franka, K. Crowdus, S. Salyer, JD Blanton, P. Dilius, A. Destine & M. Millien.

10:30 – 11:00

Coffee break.

11:00 – 12:00

Round table on Wildlife Rabies (Moderator: Charles E Rupprecht).

- a. Overview (Elizabeth Loza Rubio). 5 minutes.
- b. Surveillance of the oral vaccination program in Canada (Denis Donovan). 5 minutes.
- c. Surveillance of wildlife rabies in the USA (Kurt Vercauteren). 5 minutes.
- d. Surveillance of wildlife rabies in Europe (Thomas Müller & Conrad Freuling). 8 minutes.
- e. The importance of surveillance of wildlife rabies on public health (to be assigned). 5 minutes.
- f. How to implement a surveillance program of rabies wildlife (Charles E Rupprecht). 5 minutes.
- g. Ecological aspects of wildlife rabies in Mexico: Expectative and perspectives (Gerardo Suzan Azpiri). 5 minutes.
- h. Rabies in non-human primates: Expectative and perspectives (Silvana Favoretto). 5 minutes.
- i. Discussion: How should an epidemiological surveillance program be begun in wildlife rabies? 17 minutes.

12:00 – 14:00

Lunch.

14:00 – 16:00 (15 minutes each)

2. Rabies transmitted by bats (Moderators: José Alfredo Gutiérrez Reyes and Charles E. Rupprecht).

**“Denny Constantine Memorial Symposium”.**



**Dr. Constantine** was an active-duty commissioned officer in the United States Public Health Service from the time he graduated from the UC Davis School of Veterinary Medicine in 1955 until he retired from service in 1976. In 1965 he completed a Master of Public Health degree at UC Berkeley. Before he completed his DVM degree, Dr. Constantine had already published five scientific papers. He is internationally recognized for his research on rabies transmission and control, bat biology and the role of bats in the epidemiology of infectious diseases. He helped define rabies infection in insectivore bats, and has hypothesized and scientifically demonstrated the airborne transmission of rabies virus from bats to other animals. Dr. Constantine's research has been documented in 90 publications, including two manuscripts completed last year on the effectiveness of sound-baited traps for capturing rabid bats and skunks. In the 1950s, Dr. Constantine was in charge of Centers for Disease Control (CDC) activities at Carlsbad Caverns National Park, New Mexico, where he investigated the risk posed by large bat colonies to cavern visitors, and he also served at the CDC's Newton Field Station in Georgia. In 1958 he organized the Southwest Rabies Investigation Station in University Park, New Mexico, and served as its first chief. From 1966-76 Captain Constantine was detailed to the U.S. Navy as virologist and veterinary epidemiologist at the Naval Biomedical Research Laboratory in Oakland. Following his retirement from the U.S. Public Health Service, Dr. Constantine held appointment as a public health veterinarian for the State of California Department of Health Services, Berkeley for 13 years, working to assure scientific integrity and proper implementation of testing standards for state and federal approval of rabies vaccines and other regulatory issues. While he retired from the position of public health veterinarian in 1989, Dr. Constantine continued to carry out research in wildlife rabies control from California to Georgia and abroad.

*Qualitative risk model of bovine rabies in Brazil. Elaine Fatima de Sena, Carlos Henrique Pizarro Borges, Ellen Elizabeth Laurindo, Guilherme Basseto Braga, Mariana Figueira Dornelas & Ricardo Augusto Dias.*

*Rabies studies in Diphylla ecaudata colony in periurban area from São Paulo city, Brazil. Rosa AR, Martorelli LFA, Almeida MF, Trezza Netto J, Kataoka, APAG, Uieda W.*

*Investigating genetic demography of the common vampire bat at the edge of their range. Antoinette Piaggio, Ignacio Amezcuia Osorio, Alejandro Jiménez Ramírez, Jennifer L. Neuwald, Annie E. Tibbels, Amy L. Russell & Luis Lecuona.*

*Is the thermography a possible tool for detecting rabies in vampire bats in field? Méndez-Ojeda ML, Loza-Rubio E, Escartín SLU, López GA, Galindo G, Amezcuia MI & González FJ.*

*Modeling and mapping the distribution of common vampire bat (*Desmodus rotundus*) in North America, and potential influence of a changing climate. Mark A. Hayes & Antoinette J. Piaggio.*

*Distribución actualizada del murciélagos hematófago en el estado de San Luis Potosí, México. Amezcuia Ol, Pérez TE, Rodríguez MC, Climaco FR, Plascencia FI, Valerio SJ & Gómez MM.*

*Seasonal variation of Lagos bat virus neutralising antibodies in the Egyptian fruit bat, Rousettus aegyptiacus in South Africa.* SD McCulloch, JT Paweska, LH Nel, A Coetzer, J Coertse, M Geldenhuys, A Kemp, M Mortlock, TP Scott, N Storm, P Jansen van Vuuren, J Weyer & W Markotter.

*Determinación del ecotipo de muestras positivas al virus de la rabia mediante secuenciación de las remitidas al Centro Nacional de Servicios de Diagnóstico en Salud Animal correspondientes a enero – agosto de 2014.* Robles- Pesina MAG, Ramírez-Torres J, Nieves- García Edwin, Venegas-Cureño Emilio, Ortiz-Rico A, Delgadillo-Álvarez JB & Montaño-Hirose JA.

19:00 – 22:00

25<sup>th</sup> Anniversary Dinner (Lower side of the pool and pergolas).

- a. Celebration of the 25<sup>th</sup> Anniversary (Coordinator: Joaquín B. Delgadillo Álvarez). Address by Charles E. Rupprecht.
- b. Sand sculpture contest winners presentation (Mallely Pantoja Romo).
- c. Fundraising auction of items donated by conference attendees, including two three-day stays for two people in the Fiesta Americana Condesa Hotel, contributed by the Hotel (Richard Chipman & Elizabeth Loza Rubio).

## Wednesday 29, October

8:00 - 11:00 (15 minutes each)

1. Rabies in small wild carnivores (Moderators: Richard Chipman and Álvaro Aguilar Setién).

*Development of vaccine baits for the small Indian mongoose against rabies: Laboratory and field studies.* Steffen Ortmann, Antje Kretzschmar, Ivan Budinski, Ivana Selanec, Ivana Lojkic, & Ad Vos.

*Rabies virus variants that prevail in Guatemala and their relationship with rabies viruses circulating in other parts of Central America.* Andres Velasco-Villa, Ashutosh Wadhwa, Rene E Condori-Condori, William C. Carson, Lauren Greenberg, Victor H de Paz, Leticia del Carmen Castillo-Signor, Yolanda Mencos, Luis R Sandoval-Cambara, Luis E Escobar, & Cathleen Hanlon.

*Use of RFFIT for anti-rabies antibodies detection in Capuchin monkeys (*Cebus apella*) and coatis (*Nasua nasua*) in a Brazilian native rainforest.* Danielle Bastos Araujo, Luzia de Fátima Alves Martorelli, Ana Paula Kataoka, Luiz Francisco Sanfilippo, Edison Luis Durigon, Silvana Regina Favoretto.

*A recent epizootic of skunk rabies and associated spillover in Northern Colorado.* Amy Gilbert, Tara Rigg, Samantha Eaton, Justin Fischer, Dennis Kohler, Terry Spraker, Richard Bowen, Karen Fox, & Kurt Vercauteran.

*Genetic population structure of two rabies hosts in Alaska.* Karsten Hueffer, Elizabeth W. Goldsmith, Elizabeth Himschoot, Christopher J. Clements, Ben Renshaw, & Kris J. Hundertmark.

*Urban ecology of striped skunks in Flagstaff, Arizona, USA, and implications for skunk-to-skunk and bat-to-skunk rabies transmission.* Tad Theimer, Jesse Maestas, Anthony Clayton, Alexa Martinez, & David Bergman

*Environmental niche of rabies virus distribution in a changing Alaska.* Emily Magnuson, Falk Huettmann, & Karsten Hueffer.

*Informe de un caso positivo a rabia proveniente de un puma (*Puma concolor*) identificado con la variante 7 – zorro de Arizona y su seguimiento epidemiológico.* Orduña Sumarán José Alberto, Gutiérrez Reyes José Alfredo, Aréchiga Ceballos Nidia, Padilla Medina Irma, Iguala Vidales Miguel, Melo Munguía Martín, Chavez Crisostomo Diana, Rodríguez Mendoza Mario Arturo.

*Ferret-badger rabies in Taiwan.* WC Hsu, SH Lee, YC Tu, MS Lee, KR Tsai, JC Chang, SC Hu, WC Li, LJ Ting, YL Lin & HJ Tsai.

*Rabies epizootics in the Ethiopian wolf (Canis simensis).* Nicholas Johnson, Chris Gordon, Claudio Sillero-Zubiri & Anthony R. Fooks.

*Raccoon (*Procyon lotor*) habitat suitability and rabies spread risk: Information-theoretic, maximum entropy, and circuit theory modeling.* Timothy P. Algeo, Michael W. Palace, Dennis Slate, Rosemary M. Caron, Todd Atwood, Sergio Recuenco, Richard B. Chipman & Mark J. Ducey.

*Spatial patterns of neutral and functional genetic variations reveal patterns of local adaptation in raccoon (*Procyon lotor*) populations exposed to raccoon rabies.* Kyle CJ, Rico Y, Castillo S, Srithayakumar V, Cullingham CI, White BN & Pond BA.

11:00 – 11:30

Coffee break.

# Current status of rabies research

(Coordinator: Jane Megid)

11:30 – 13:00 (15 minutes each)

1. Pathogenesis (Moderators: Alan Jackson and Elizabeth Loza Rubio).

*Mitochondrial dysfunction in rabies virus infection and implications for new therapeutic approaches to rabies.* Alan C. Jackson, Wafa Kammouni, Heidi Wood, Ali Saleh, Camila M. Appolinario, & Paul Fernyough.

*Natural and experimental infection of big brown bats with rabies virus.* James Ellison, Steven Taylor, Shylo Johnson, William Carson, Lauren Greenberg, Richard Franka & Amy Gilbert.

*Altered in situ expression of claudin-5 tight-junction protein in human rabies cases transmitted by vampires bats and dogs.* Fernanda Guedes, Maria Irma Seixas Duarte, & Elaine Raniero Fernandes.

*Pathogenesis of homologous rabies virus in hematophagous bats (*Desmodus rotundus*).* Méndez-Ojeda ML, Loza-Rubio E, Rojas-Anaya E, Suzán AG, Medellín MR, Rupprecht CE.

*Immune control of rabies virus spread through the spinal cord.* D. Craig Hooper, Darryll A. Barkhouse, Carla Portocarrero, Jianwei Li, & Rhonda B. Kean.

*BBB alteration is required for intravenously administered VNA to clear an established rabies virus infection from the CNS and prevent the development of rabies in mice.* Chien-Tsun Huang, Zhenguang Li, Ying Huang, Guoqing Zhang, Ming Zhou, Qingqing Chai, Hua Wu, & Zhen F. Fu.

13:00 – 15:00

Lunch.

Lunch of RITA, Inc., with the local organizing committee and sponsors. Restaurante Mexicano. By invitation only.

15:00 – 17:30 (15 minutes each)

2. Diagnosis (Moderators: Evelyne Picard-Meyer and Rosely Cerqueira).

*Comparison of biotinylated monoclonal and polyclonal antibodies in an evaluation of a direct rapid immunohistochemical test for the routine diagnosis of rabies in Southern Africa. André Coetzer, Claude T Sabela, Wanda Markotter, Charles E Rupprecht & Louis H Nel.*

*PCR anidado para la detección del virus rábico en saliva. Huesca SAD, Loza-Rubio E, Méndez OML & Rojas-Anaya E.*

*Cross-platform evaluation of commercial real-time SYBR Green RT-PCR kits for sensitive and rapid detection of rabies virus. Evelyne Picard-Meyer, Carine Peytavin de Garam, Jean Luc Schereffer, Clotilde Marchal, Emmanuelle Robardet & Florence Cliquet.*

*Panel ampliado de 20 anticuerpos monoclonales anti-nucleocápside como herramienta en la diferenciación de las variantes antigenéticas atípicas del virus de la rabia dentro del territorio mexicano. Mauricio Gómez, David-Martínez, Irma Leticia-Padilla, Susana-Chavez, Martín-Melo, Nidia-Arechiga, Albert-Sandoval, Israel Animas, Alfredo-Gudiño, Beatriz Escamilla, Miguel Iguala, Charles E Rupprecht, Lilian A Orciari, Andrés Velasco.*

*Evaluation of blocking ELISA as tool for control oral vaccination effectiveness. Miroslav Mojzis, Slavomir Jerg & Korytar Peter.*

*Identificación específica y distribución de las variantes genéticas del virus de la rabia en México. Escobar-Escamilla Noé, Trejo-Rodríguez Rosalba, Morales-López Zoila, Meléndez-Félix Alejandra & Rosa María Ribas-Aparicio.*

*Lateral flow devices as diagnostic tools for rabies – a comparative study with six different tests with surprising results. Conrad Freuling, Jeannette Kliemt, Bernd Hoffmann, Kore Schlottau, Thomas Mettenleiter, Thomas Müller.*

*Rabies vaccine booster decision and rabies serology: how to interpret results. Susan Moore.*

*Blue ribbon panel on rabies serology in wild meso-carnivores. Richard B. Chipman, Amy T. Gilbert, Dennis Slate, Kurt C. Vercauteren, Kathy M. Nelson and Charles Trimarchi*

*Progress in the development of a direct rapid immunohistochemical test for lyssavirus diagnosis. C.E. Rupprecht, F. Cliquet, H. Ertl, C. Fehlner-Gardiner, A.R. Fooks, T. Mueller, C. Sabela & D. Slate.*

## Thursday 30, October

8:00 – 8:45 (15 minutes each)

3. Immunology (Moderators: Silvana Favoretto and Cathleen Hanlon).

*A Th1-type immune response is required for efficient clearance of RABV from CNS tissue. Aurore Lebrun, Carla Portocarrero, Rhonda B. Kean, Milosz Faber, D. Craig Hooper*

*Comparative evaluation of the proinflammatory cytokines profile in central nervous system from human rabies cases transmitted by dogs and vampire bats. Elaine Raniero Fernandes, Fernanda Guedes, Samira Maria Achkar & Maria Irma Seixas Duarte.*

*Glycosylation of the rabies virus G protein impacts antibody neutralizing activity in vitro. Ferreira JS, Katz ISS, Caporale GMM & Silva SR.*

8:45 – 11:00 (15 minutes each)

4. New vaccines and antivirals (Moderators: Miguel Iguala Vidales and Andrés Velasco-Villa).

*Production of a chromatographically purified Vero cell rabies vaccine. María Rosario Tubio, Santiago Chiappini, Analía López Díaz, Analía De Nichilo, Andrés Hernando Insúa, Carlos Palacios, Oscar P. Larghi & Alejandro Daniel Parola.*

*Expression of rabies virus glycoprotein G by using recombinant baculovirus.* Chang-Kweng Lim, Wouter van den Braak, Madoka Horiya, Mutsuyo Ito-Takayama, Yukie Yamaguchi, Satsuki Kakiuchi & Masayuki Saito.

*VerorabVax™: A Step Forward in Human Rabies Vaccines.* Françoise Guinet-Morlot, Sylvie Pichon & Nicolas Sèvre.

*Safety and immunogenicity study of rabies G protein vaccine administered to healthy volunteers: A preliminary report.* Rajiv I Modi, Khamar B, Sawhney D, Talpada M, Madhusudana SN, Greg G & Fries L.

*A recombinant rabies vaccine expressing the trimeric form of the glycoprotein confers enhanced immunogenicity and protection in outbred mice.* Penelope Koraka, Berend-Jan Bosch, Manon Cox, Rick Chubet Geert van Amerongen, Karen Lövgren Bengtsson, Byron E.E. Martina, Jouke Roose, Peter J.M. Rottier and Albert D.M.E. Osterhaus.

*Evaluation of anti-rabies virus immune response in rabbits immunized with different plasmid DNA vectors encoding the rabies virus glycoprotein genes.* DV Volokhov, A Fry, CE Lewis, V Furtak, A Dabrazhynetskaya, JR Hermann & VE Chizhikov.

*Rabies vaccine preserved by vaporization is immunogenic and effective pre-exposure vaccine.* Todd G. Smith, Marina Siirin, Cathleen Hanlon & Victor Bronshtein.

*Evaluation of herbal extract for its anti-viral activity against rabies virus.* Ashwin YB, Sampada Sudarshan, Reeta Mani & Madhusudana SN.

*A comparison of the anamnestic response to rabies vaccination in currently vaccinated and out-of-date dogs and cats: Rationale for a re-evaluation of recommendations for previously vaccinated animals exposed to rabies.* Mike Moore, Rolan Davis, Christopher Vahl, Ryan Wallace & Cathleen Hanlon.

11:00 – 11:30

Coffee break.

11:30 – 11:40

Announcement of next RITA.

11:40 – 13:00

Advances in national and international programs of rabies control from the perspective of each institution (10 minutes each). Coordinator: Joaquín B. Delgadillo Álvarez.

- Public Health Agency of Canada and Canadian Food Inspection Agency (Joint presentation by Erin Leonard).
- CDC (Cathleen A. Hanlon) / USDA (Richard Chipman).
- Mexican Ministry of Health (Fernando Vargas Pino) / SENASICA (José Alfredo Gutiérrez Reyes).
- Brazilian Ministry of Health (Eduardo Caldas) / MAPA (Elaine Senna).
- OIRSA (Edwin Mauricio Aragón Rojas).
- Pre-REDIPRA. PAHO. Marco Vigilatto.
- FAO. Regional Representative for Latin America and the Caribbean (Raúl Osvaldo Benítez) and Sub-regional Representative for Central America (Ignacio Rivera Rodríguez).
- GARC (Louis Nel).

13:00 – 13:30

Closing ceremony.

# POSTER SESSIONS

The papers that will be presented in the posters session will occupy a space of 90 cm high x 60 cm wide.

Posters must be available for visit during the event from Sunday 26 to Thursday 31.

Authors must be present on Monday October 27<sup>th</sup> from 14:30 to 17:00 to discuss their work with visitors.

## Rabies in humans

- P01 *Cross-neutralizing activity of antibodies induced by vaccination with Purified Chick Embryo Cell Rabies Vaccine (PCECV) against different Lyssavirus species.* Alexandra Giesen, Conrad Freuling, Claudius Malerczyk, Thomas Selhorst & Thomas Müller.
- P02 *Ante-mortem laboratory diagnosis and treatment support in case imported of human rabies in the city of São Paulo, Brazil.* Samira Maria Achkar, Luciana Botelho Chaves, Helena Beatriz de Carvalho Ruthner Batista, Juliana Galera Castilho, Karen Miyuke Asano, Andréa de Cássia Rodrigues da Silva.
- P03 *Proyecto de Plataforma para la sistematización y organización de la vigilancia epidemiológica de la atención del expuesto al virus rágico en Chiapas México.* Raúl Betanzos López, Luis Lecuona, Rodolfo de Jesús Sánchez Cruz, Karla Elena Cruz Pérez, Silvia Gloria Nuricumbo Gallegos.
- P04 *Toward canine rabies elimination: Rabies extension of the WHO-CHOICE Model.* Brody Hatch, Aaron Anderson, Louis Nel, Christopher Fitzpatrick, Bernadette Abela-Riddler, & Stephanie Shwiff.
- P05 *I Traveled the world, and all I got was PEP: Developing a transparent country risk classification system to inform pre-travel rabies vaccination recommendations.* Jesse D. Blanton.
- P06 *Human rabies in Brazil between 2004-2013.* Juliana Galera Castilho, Rafael de Novaes Oliveira, Pedro Carnieli Junior, Carla Isabel Macedo, Samira Maria Achkar, Silene Marinque Rocha, Lúcia Regina Montebello, Eduardo Pacheco de Caldas, Helena Beatriz de Carvalho Ruthner Batista.
- P07 *Situación del programa de rabia durante el año 2013 en el estado de Guerrero, México.* Lorena Dorantes Salgado & S. Carrillo P.
- P08 *Incidencia de personas agredidas por animales susceptibles de transmitir la rabia en el municipio de Morelia.* María Beatriz Pichardo Argüello, Liliana Hernández Corona & Melitón Rosales Rosas.
- P09 *Análisis epidemiológico de la encefalitis rágica humana en el Estado de México. 1979-20014.* Pérez-Sotelo LS, Gutiérrez MCA & Soto GG.

## Animal rabies

- P10 *Estudio histológico descriptivo y comparativo del sistema cardiovascular de los murciélagos hematófagos Desmodus rotundus y Diphylla ecaudata.* Vargas-Soto Luz María, Estrada-García Julieta, Olave-Leyva J Ignacio, García-Reyna Patricia B & Ocampo-López Juan.
- P11 *First description of rabies virus in a cat after 13 years, in the State of Rio Grande do Sul, southern Brazil.* Helena Beatriz de Carvalho Ruthner Batista, Julio Cesar Almeida Rosa, Marcelia Emanuele Sad Fernandes, Patricia Mariano Cruz Pereira, Rafael de Novaes Oliveira, Jose Carlos Ferreira, Juliana Galera Castilho, Laura Lopes Almeida, Pedro Carnieli Junior & Paulo Michel Roehe.
- P12 *Formación de brigadas municipales como estrategia para el control de rabia transmitida por murciélagos hematófago en Michoacán, México /Training of municipal brigades as a strategy for the control of rabies transmitted by Hematophagous bat in Michoacán, México.* Jorge Arturo Arana Sandoval, Edgar Ulises González Solache, Enrique Anaya Rodríguez & Antonio de Jesús Trejo Marin.
- P13 *Estudio histológico descriptivo y comparativo del aparato respiratorio de los murciélagos hematófagos Desmodus rotundus y Diphylla ecaudata.* Pérez-Aguirre Germán, Hernández-Guzmán J Luis, Acosta-Salinas Rosalinda, García-Reyna Patricia B & Ocampo-López Juan.
- P14 *Dueño socialmente responsable.* José Ramón Hernández Pérez.

- P15 *Macro jornadas de esterilización quirúrgica de perros y gatos: estrategia coadyuvante en la prevención de la rabia.* Juan M. Balderas T., Solís-Tapia D., Martínez-Mateos V., Franco-Domínguez V., Doroteo-Cid V., Calderón-Tirado F., Luna-Luna G. & Andrade-Roca J.
- P16 *Foci of bovine rabies and the railroad Carajás in the Maranhão.* Roberto Carlos Negreiros de Arruda & Anizio José Rocha.
- P17 *Resultados del censo canino y felino 2013 en la jurisdicción sanitaria Atizapán de Zaragoza.* Roberto Castillo Delgado.
- P18 *Intratesticular injections of calcium chloride result in necrosis of the testicles.* Ruth Steinberger.
- P19 *Statistical survey of unconventional species submitted for rabies diagnosis at Pasteur Institute of São Paulo.* Samira Maria Achkar, Helena Beatriz de Carvalho Ruthner Batista, Rafael de Novaes Oliveira, Elaine Raniero Fernandes; Fernanda Guedes; Carla Isabel Macedo, & Juliana Galera Castilho.
- P20 *First report of rabies in crab-eating fox (*Cerdocyon thous*) due to the virus variant maintained by marmoset (*Callithrix jacchus*) in northeast Brazil.* Naylê Francelino Holanda Duarte, Keila Iamamoto Nogi, Danielle Bastos Araujo, Rossana de Aguiar Cordeiro, Adriana Candido Rodrigues, José Júlio Costa Sidrim, Rogério Azevedo, José Árton de Negreiros, Benedito Neilson Rolim, & Silvana Regina Favoretto.
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- P28 *Challenge of frugivorous Artibeus intermedius bats captured in the wild, with rabies virus (vampire bat origin V3 variant).* Obregón Morales Cirani, Aréchiga Ceballos Nidia, Pereira Martínez Leonardo & Aguilar Setién Álvaro.
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- P31 *“Como células produzem (lyssa)vírus” ou “a aplicação de virologia básica no entendimento da virose que leva à raiva”.* Phyllis Catharina Romijn; Leda Maria Silva Kimura.
- P32 *Standardization of an enzyme immunoassay using rabies virus G recombinant proteins from insect larvae.* Rojas-Anaya E, Loza-Rubio E, Escribano-Romero E, Blazquez AB, Saiz-Calahorra JC & Martínez-Escribano JA.
- P33 *Stability of nucleoprotein of rabies virus after serial passages.* Helena Beatriz de Carvalho Ruthner Batista, Patricia Mariano Cruz Pereira, Marcelia Emanuele Sad Fernandes, Rafael de Novaes Oliveira, Juliana Galera Castilho, Pedro Carniel Junior, Paulo Michel Roehe.
- P34 *Correlation of fluorescence intensity with amount of virus inoculated.* Iana Suly, Santos Katz, Karen Miyuki Asano, Keila Iamamoto Nogi, Luciana Botelho Chaves, Adriana Candido Rodrigues Nasraui, Orlando Garcia Ribeiro & Karin Corrêa Scheffer Ferreira.

- P35 *Difference in virulence of wild rabies virus isolates from different reservoirs.* Iana Suly Santos Katz, Luciana Botelho Chaves, Adriana Candido Rodrigues Nasraui, Karin Corrêa Scheffer Ferreira, & Orlando Garcia Ribeiro.
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- P45 *Global gene expression of innate and adaptative immune response in mice experimentally infected with RABV variants isolated from different animal species.* Susan Dora Allendorf, Camila M. Appolinário, Glenda Nicioli da Silva, Acácia Ferreira Vicente, João Marcelo A. P. Antunes, Marina G. Peres, Mateus S. R. Mioni, Bruna Letícia Devidé, Clóvis Reynaldo S. Fonseca & Jane Megid.