

UNIVERSIDADE FEDERAL DO RIO GRANDE DO NORTE

Instituto do Cérebro



HOUSE SYMPOSIUM

FROM CELLULAR MECHANISMS TO POPULATION CODING
IN HEALTH AND DISEASE

PROGRAM

2015

13 e 14 de novembro
IMIRÁ PLAZA HOTEL

NATAL

www.neuro.ufrn.br

FRIDAY 13.1. 2015

8.30 OPENING

Sidarta Ribeiro (Director of the Brain Institute - UFRN)

9.00 – 12.00 TOPIC I - CODING AND RHYTHMS IN SENSORY SYSTEMS AND HIPPOCAMPUS

Chair: Katarina Leão

9.00 SENSORIMOTOR RHYTHMS IN THE RAT

Diego Laplagne (D Laplagne group)

9.30 OLM INTERNEURONS PROMOTE THETA ACTIVITY IN THE VENTRAL HIPPOCAMPUS

Richardson Leão (R Leão group)

10.00 - 10.30 COFFEE BREAK

10.30 VISUAL CONTEXT IS REFLECTED DIFFERENTLY IN VI FIRING RATES AND PHASE RELATIONS

Sergio Conde (K Schmidt group)

11.00 GAMMA-NO-GAMMA: THIS IS THE QUESTION

Sergio Neuenschwander (S Neuenschwander group)

11.30 LACK OF EVIDENCE FOR CROSS-FREQUENCY PHASE-PHASE COUPLING BETWEEN THETA AND GAMMA OSCILLATIONS IN THE HIPPOCAMPUS

Robson Scheffer-Teixeira (A Tort group)

12.00 - 13.30 LUNCH BREAK

13.30 - 15.00 POSTER SESSION I (PRESENTING EVEN NUMBERS)

15.00 - 16.00 TOPIC 2 - ANIMAL MODELS OF MENTAL DISORDERS

Chair: Fernanda Palhano

15.00 HIPPOCAMPUS - PREFRONTAL CORTEX COORDINATION DURING SOCIAL INTERACTION AND MEMORY EXTINCTION IN THE VPA MODEL OF AUTISM

João Bacelo (R Pereira group)

15.30 MESOLIMBIC ACTIVITY AFTER SOCIAL DEFEAT: A BEHAVIORAL AND ELECTROPHYSIOLOGICAL STUDY

Aron de Miranda Henriques-Alves (C Queiroz group)

16.00 – 17.30 POSTER SESSION 2 (PRESENTING ODD NUMBERS)

SATURDAY 14.11.2015

8.30 - 11.30 TOPIC 3 - NEUROLOGICAL DISEASES

Chair: Lia Bevilaqua

8.30 NEUROPLASTICITY: UNDERSTANDING CORTICAL DEVELOPMENT AND DESIGNING REHABILITATIVE THERAPIES

Antonio Pereira (A Pereira group)

9.00 IS THERE A LINK BETWEEN CANCER AND NEUROLOGICAL DISEASES?

Sandro de Souza (S De Souza group)

9.30 ACTIGRAPHY AND CHRONOTYPE CHARACTERIZATIONS TO UNDERSTANDING POOR SLEEP QUALITY AND ACTIVITY-REST CYCLE DISTURBANCES IN FIBROMYALGIA SYNDROME

Kathiane de Santos Santana (M B Sousa group)

10.00 – 10.30 COFFEE BREAK

TOPIC 4 - MENTAL STATES

Chair: Katia-Simone Rocha

10.30 PSYCHOBIOLOGICAL AND CLINICAL RESEARCH WITH AYAHUASCA

Draulio Araújo (D Araujo group)

11.00 COMPUTATIONAL PSYCHOLOGY: HOW COMPUTATIONAL APPROACHES CAN HELP TO UNDERSTAND DIFFERENT STATES OF CONSCIOUSNESS

Natalia Mota (S Ribeiro group)

11.30 - 12.30 POSTER SESSION 3 (PRESENTING ODD NUMBERS)

12.30 - 14.00 LUNCH BREAK

14.00 - 15.30 TOPIC 5 – TRANSGENIC APPROACHES AND CELL TRANSPLANTS

Chair: Andressa Radiske

14.00 INVIVO AND INVITRO DIRECT LINEAGE-REPROGRAMMING OF DISTINCT ASTROGLIAL POPULATION INTO NEURONS

Malek Chouchane (M Costa group)

14.30 SPECIFIC NEURONAL POPULATIONS IN THE DORSAL COCHLEAR NUCLEUS THAT RESPOND TO SOUND CAN BE CONTROLLED USING OPTOGENETIC AND CHEMOGENETIC PROTEINS

Thawann Malfatti (K Leão group)

15.00 TRANSGENIC ZEBRA FINCHES: A GENETIC APPROACH TO INVESTIGATE THE BIOLOGICAL BASES OF VOCAL COMMUNICATION

Tarciso Velho (T Velho group)

15.30 - 16.30 POSTER SESSION 4 (PRESENTING EVEN NUMBERS)

16.30 - 24.00 DISCUSSION AND COCKTAIL

HOUSE SYMPOSIUM 2015 - POSTERS

1. PATCHY INTERHEMISPHERIC CIRCUITS ACCOUNT FOR A CARDINAL BIAS IN ONGOING ACTIVITY WITHIN EARLY VISUAL AREAS. Tiago S. Altavini, Sergio A. Conde Ocazionez, Thomas Wunderle, David Eriksson, Kerstin E. Schmidt
2. ELIMINATION OF EARLY BORN NEURONS AFFECTS THE SPECIFICATION OF LATE BORN NEURONS IN THE CEREBRAL CORTEX. Bruna Soares Landeira, Jéssica Alves de Medeiros Araújo and Marcos R. Costa
3. OPTICAL MODULATION OF ORIENS LACUNOSUM-MOLECULARE (OLM) CELLS RESULTS IN SPECIFIC IMPAIRMENT OF MEMORY ACQUISITION IN AN OBJECT RECOGNITION TASK. Arthur S. C. França, Samer Siwani, Amilcar Reis, Richardson Leão, Adriano B. L. Tort¹ and Klas Kullander.
4. PROTEOME BROWSER: EXPOSING THE PROTEOME COMPLEXITY. José Eduardo Kroll, Sandro J. de Souza and Gustavo A. de Souza.
5. IMPAIRED TONOTOPY AND RECEPTIVE FIELDS IN THE PRIMARY AUDITORY CORTEX OF AN ANIMAL MODEL OF AUTISM. Anomal, RF; de Villers-Sidani E; Brandão JA; Diniz R; Costa, MR, and Romcy-Pereira RN.
6. MARTINOTTI CELLS DEFINED BY CHRNA2 COORDINATE LAYER V PYRAMIDAL CELL ACTIVITY. Markus M Hilscher, Richardson N Leão, Katarina E. Leão, and Klas Kullander.
7. SLC10A4 KNOCKOUT MICE SHOW ABNORMAL EVENT-RELATED POTENTIALS IN RESPONSE TO AN AUDITORY PAIRED-CLICKS GATING TEST: IMPLICATIONS FOR PSYCHIATRIC DISORDERS. K. E. Leao, M. M. Hilscher, R. N. Leao, H. Petterson, M. Blunder, and K. Kullander.
8. ELECTRICAL ACTIVITY MODULATES NEURONAL TYPE CHOICE BY ADULT RODENT BRAIN PROGENITORS. Sequerra E.B., Moura D.M.S., and Costa M.R.
9. SPIKE SORTING WITH MIXTURE MODELS. Bryan C. Souza, Vítor Lopes-dos-Santos, João Bacelo and Adriano B. L. Tort.

10. SPATIAL COGNITION IN HIGH ABILITY CHILDREN: SEARCHING FOR A PHYSIOLOGICAL MARKER USING ELETROENCEFALOGRAPHY. Anomal, Renata; Brandão, Daniel; Hazin, I, and Pereira, Antônio.
11. A RESPIRATION-COUPLED RHYTHM IN THE RAT HIPPOCAMPUS INDEPENDENT OF THETA AND CORTICAL SLOW OSCILLATIONS. André LV Lockmann, Diego A Laplagne, Richardson N Leão, and Adriano B L Tort.
12. EFFECTS OF AYAHUASCA ON EMOTIONAL REGULATION PROCESS. Fernanda Palhano Xavier de Fontes, Morgana Menezes Novaes and Dráulio Barros de Araújo.
13. REPORT OF THE OLM MODULATORY ACTIVITY AT MICE DENTATE GYRUS USING ARCLIGHT. Rafael Vitor Lima da Cruz and Richardson Naves Leão
14. VISUAL PERCEPTION AND IMAGERY ADAPTATION EFFECTS MODULATED BY AYAHUASCA. Kátia C. Andrad¹, Tallita de Souza Zimmermann, Artur Morais, Fernanda Palhano-Fontes, Sidarta Ribeiro, and Draulio Barros de Araujo.
15. JOINT CHARACTERIZATION PLACE AND TIME CELLS IN RAT HIPPOCAMPUS. Rodrigo Pavão, Hindiael Aeraf Belchior, Alan Michel Bezerra Furtunato, Howard Eichenbaum, Adriano Bretanha Lopes Tort
16. EFFECTS OF PRANAYAMA ON EMOTIONAL REGULATION. Morgana Menezes Novaes, Fernanda Palhano Xavier de Fontes, Danilo Forghieri Santaella e Dráulio Barros de Araújo.
17. COORDINATION OF RESPIRATORY, TACTILE AND VOCAL RHYTHMS DURING RAT EXPLORATORY BEHAVIOR. Joseph Andrews Belo Alves and Diego A. Laplagne.
18. ROLE OF RAT ULTRASONIC VOCALIZATIONS IN SOCIAL LOCOMOTIVE BEHAVIOR. Barbara Ciralli and Diego A. Laplagne.
19. DO FAST RETINAL OSCILLATIONS PLAY A ROLE IN VISION? A STUDY IN THE AWAKE CAT. Giovanna Rosso and Sergio Neuenschwander.
20. MORPHOLOGICAL ALTERATIONS IN IMMATURE AND MATURE HIPPOCAMPAL NEURONS FOLLOWING KAINIC ACID INJECTION. Moura DMS, Queiroz CM, and Costa MR.
21. OPTOTHERMAL EFFECTS IN THE BRAIN TRIGGERED BY OPTOGENETIC

STIMULATION. Helton Maia Peixoto, Rossana Cruz e Richardson N Leao.

22. CHARACTERIZATION OF PROLIFERATIVE BEHAVIOR BY NEURAL PROGENITORS IN THE POSTNATAL SVZ. Cunha-Pereira C., Sequerra E.B. and Costa M.R.

23. FREQUENCY FOLLOWING RESPONSE IN MUSICIANS WITH ABSOLUTE PITCH ABILITY. Raphael Bender Leite, Sérgio Mota Rolim, Claudio Marcos Queiroz.

24. DIFFERENTIAL FIRING OF NEURONS RECORDED IN THE HIPPOCAMPUS AND RELATED CORTICAL STRUCTURES DURING NATURALLY SLEEPWAKE CYCLE. Bruna del Vechio Koike, Kelly Soares Farias, Francesca Billwiller, Pierre-Herve Luppi, Claudio Marcos Queiroz.

25. PERSPECTIVES OF CELL THERAPY IN TEMPORAL LOBE EPILEPSY. Kelly Soares Farias, Malek Chouchane, Daniela Maria de Sousa, Marcos Romualdo Costa, Claudio Marcos Queiroz.

26. TRANSCRIPTOME ANALYSIS OF THE FRONTAL CORTEX OF A RODENT MODEL OF AUTISM. Araujo-Sousa C., Kroll, J.E., Sousa J.A.B.M., Linhares M.G., Freitas C.R., Souza S.J., Romcy-Pereira R.N.

27. POST-NATAL SENSORY MOTOR DEVELOPMENT IN THE VPA ANIMAL MODEL OF AUTISM. Sierra, O. and Romcy-Pereira, R.N.

28. INHERITANCE OF SOCIAL BEHAVIOR AND ATYPICAL CORTICAL INHIBITORY ORGANIZATION IN THE VPA MODEL OF AUTISM. Brandão JA, Araujo-Sousa C, Soares AM, Fernandes BP, Costa MR and Romcy-Pereira RN.

29. LEARNING OF NOVEL VOCAL USAGE BY THE COMMON MARMOSSET. Thamiris Botelho Ribeiro Conceção, Hjalmar Turesson and Sidarta Ribeiro.

30. ORIENTATION- AND DIRECTION-SELECTIVE VISUAL RESPONSES IN VI OF AGOUTI. Dardo Nahuel Ferreiro, Sergio A. Conde Ocazonez, Luã Carlos de Souza, Kerstin E. Schmidt.

31. STUDYING PSYCHOPATHOLOGIES AND EVOLUTION OF MIND THROUGH LITERATURE GRAPHS. Sílvia Galvão De Vasconcelos Pinheiro; Natália Bezerra Mota; Mauro Copelli²; Sidarta Ribeiro.

32. BEHAVIORAL AND ELECTROPHYSIOLOGICAL STUDY OF MEMORY CORTICALIZATION. Almeida-Filho DG; Golbert DCF; Souza AC; Sousa BF; Gonzalez MC; Cammarota M; Ribeiro S.

33. OPTOGENETIC STIMULATION OF MEDIAL SEPTUM IN ANESTHETIZED AND FREELY BEHAVING RATS. Souza, A.; Santos, V.; Maia, H.; Targino, J.H.; Queiroz, C.; Leão, K., Leão, R.; Ribeiro, S.

34. GAIN OF TRANSCRIPTION FACTOR BINDING SITES IN HUMANS OCCURS MORE FREQUENTLY IN GENES WITH HIGHER EXPRESSION BREADTH. VL da Silva AM Ribeiro-dos-Santos, W Blanco, S J de Souza.

35. DIRECT LINEAGE-REPROGRAMMING OF MÜLLER GLIAL CELLS INTO NEURONS. Ana Raquel Melo de Farias, Roberta Pereira de Melo, Marcos Romualdo Costa.

36. AUTOPHAGY REGULATES AXONAL DEGENERATION AFTER TRAUMATIC LESION IN THE CENTRAL NERVOUS SYSTEM. V.T. Ribas, B. Vahsen, J.C. Koch, U. Michel, M.R. Costa, M. Bähr, P. Lingor.

