Paul-Antoine LIBOUREL, PhD
Date of birth: November 1980
WebSite: https://palibourel.cnrs.fr/
Email: pa.libourel@cnrs.Fr

Researcher / Engineer
Comparative biology of sleep

SKILLS

Sciences and technologies

- **BIOLOGY OF SLEEP**
- **SLEEP IN REPTILES**
- **SIGNAL ACQUISITION AND PROCESSING (Electrophysiology, EEG , EMG)**
- **NEUROBIOLOGY, PHYSIOLOGY, ANATOMY**
- **INSTRUMENTATION and MEDICAL IMAGERY,** (**X-Ray**, CT Scan, Echography, MRI…).
- **IMAGERY AND OPTICS,** physical, electronic, mathematical and image processing concepts in vision and imagery technologies.
- **MECHANICS:** general mechanics, resistance of materials, conception

PROFESSIONAL EXPERIENCE

Since May 2009 : ***CNRS UMR 5292, Neuroscience Research Center of Lyon, France***
Member of the Sleep team

Research engineer:

Research Project: ecophysiology and evolution of sleep states
- **Behavioural and wireless electrophysiological characterisation of sleep in vertebrates**
- **Co Mentor of two PhD students**

Technical Project:
- **Development of a datalogger for sleep research in the wild**
- **Development of data processing and acquisition tools for sleep research**
- **Scientific consultant for 10 years with a private company**

January 2005- May 2009 : ***CNRS UMR 7179, National Museum of Natural History, Paris, France***
Adaptation mechanisms: from organism to community
Member of the team "Organism motion: evolution and functional aspects"

Scientific instrumentation engineer:

Development of activities, tools and management of the vertebrate's locomotion platform:

- **Development of the methodologies for animal movement quantification, in the lab and in the field**
- **Management of the platform**

EDUCATION AND TRAINING

2019: PhD in neurosciences, **Phylogeny of sleep in tetrapods : analysis of evolutionary patterns, electrophysiological and behavioral studies in two squamates species and new methodological perspectives.**
2002-2003: Post-graduate degree (Master 2) in **Electronic Imagery** Université P. et M. Curie Paris VI, **image processing**, sensors**, 3D scanning** …
2000-2002: Masters (MST) in **Biomedical Engineering** Université C. Bernard Lyon I, **Medical instrumentation**, electronics, **general anatomy and physiology, signal processing ...**
1998-2000: Degree (DUT) in **Mechanical engineering and Industrial Automation**, Université C. Bernard Lyon I, **Mechanics,** production, mechanical design …

PUBLICATIONS AND CONFERENCES

Publications (46)

2019

- **Libourel PA,** Phylogeny of sleep in tetrapods : analysis of evolutionary patterns, electrophysiological and behavioral studies in two squamates species and new methodological perspectives, Neuroscience. Université de Lyon, 2019. English. ⟨NNT : 2019LYSE1020⟩. ⟨tel-02086610⟩

- Massot, B., Arthaud, S., Barrillot, B., Roux, J., Ungurean, G., Luppi, P.-H., Rattenborg, N.C., and **Libourel, P.A.** (2019). ONEIROS, a new miniature standalone device for recording sleep electrophysiology, physiology, temperatures and behavior in the lab and field. J. Neurosci. Methods 316, 103–116.
- Touzot, M., Teulier, L., Lengagne, T., Secondi, J., Théry, M., **Libourel, P.-A.**, Guillard, L., and Mondy, N. (2019). Artificial light at night disturbs the activity and energy allocation of the common toad during the breeding period. Conserv. Physiol. 7, coz002.

2018

- Barrillot, B., Roux, J., Arthaud, S., Averty, L., Clair, A., Herrel, A., and **Libourel, P.A.** (2018). Intramuscular administration of ketamine-medetomidine assures stable anaesthesia needed for long-term surgery in the argentine tegu Salvator merianae. J. Zoo Wildl. Med. Off. Publ. Am. Assoc. Zoo Vet. 49, 291–296.
- **Libourel, P.A**., Barrillot, B., Arthaud, S., Massot, B., Morel, A.-L., Beuf, O., Herrel, A., and Luppi, P.-H. (2018). Partial homologies between sleep states in lizards, mammals, and birds suggest a complex evolution of sleep states in amniotes. PLoS Biol. 16, e2005982.
- Valencia Garcia, S., Brischoux, F., Clément, O., **Libourel, P.A.**, Arthaud, S., Lazarus, M., Luppi, P.-H., and Fort, P. (2018). Ventromedial medulla inhibitory neuron inactivation induces REM sleep without atonia and REM sleep behavior disorder. Nat. Commun. 9, 504.

2017

- Koike, B.D.V., Farias, K.S., Billwiller, F., Almeida-Filho, D., **Libourel, P.A**., Tiran-Cappello, A., Parmentier, R., Blanco, W., Ribeiro, S., Luppi, P.-H., et al. (2017). Electrophysiological Evidence That the Retrosplenial Cortex Displays a Strong and Specific Activation Phased with Hippocampal Theta during Paradoxical (REM) Sleep. J. Neurosci. Off. J. Soc. Neurosci. 37, 8003–8013.
- Valencia Garcia, S., **Libourel, P.A.**, Lazarus, M., Grassi, D., Luppi, P.H., and Fort, P. (2017). Genetic inactivation of glutamate neurons in the rat sublaterodorsal tegmental nucleus recapitulates REM sleep behaviour disorder. Brain 140, 414–428.

2016

- Fraize, N., Carponcy, J., Joseph, M.A., Comte, J.C., Luppi, P.H., **Libourel, P.A.**, Salin, P.A., Malleret, G., and Parmentier, R. (2016). Levels of Interference in Long and Short-Term Memory Differentially Modulate Non-REM and REM Sleep. Sleep 39, 2173–2188.
- Herbin, M., Simonis, C., Reveret, L., Hackert, R., **Libourel, P.A.**, Eugene, D., Diaz, J., de Waele, C., and Vidal, P.P. (2016). Dopamine Modulates Motor Control in a Specific Plane Related to Support. Plos One 11, e0155058.
- **Libourel, P.A.**, and Herrel, A. (2016). Sleep in amphibians and reptiles: a review and a preliminary analysis of evolutionary patterns: Sleep in amphibians and reptiles. Biol. Rev. 91, 833–866.
- Varin, C., Arthaud, S., Salvert, D., Gay, N., **Libourel, P.A.**, Luppi, P.H., Leger, L., and Fort, P. (2016). Sleep architecture and homeostasis in mice with partial ablation of melanin-concentrating hormone neurons. Behav Brain Res 298, 100–110.

2015

- Joseph, M.A., Fraize, N., Ansoud-Lerouge, J., Sapin, E., Peyron, C., Arthaud, S., **Libourel, P.A.**, Parmentier, R., Salin, P.A., and Malleret, G. (2015). Differential Involvement of the Dentate Gyrus in Adaptive Forgetting in the Rat. Plos One 10, e0142065.
- Ravassard, P., Hamieh, A.M., Joseph, M.A., Fraize, N., **Libourel, P.A.**, Lebarillier, L., Arthaud, S., Meissirel, C., Touret, M., Malleret, G., et al. (2015). REM Sleep-Dependent Bidirectional Regulation of Hippocampal-Based Emotional Memory and LTP. Cereb Cortex
- Urbain, N., Salin, P.A., **Libourel, P.A.**, Comte, J.C., Gentet, L.J., and Petersen, C.C. (2015). Whisking-Related Changes in Neuronal Firing and Membrane Potential Dynamics in the Somatosensory Thalamus of Awake Mice. Cell Rep 13, 647–656.

2014

- Arthaud, S., Varin, C., **Libourel, P.A.**, Fort, P., Luppi, P.H., and Peyron, C. (2014). Efficient paradoxical (REM) sleep homeostatic regulation in mice: reports on sleep architecture and neuronal activation. J Sleep Res 23, 270–271.
- Arthaud, S., Varin, C., Gay, N., **Libourel, P.A**, Chauveau, F., Fort, P., Luppi, P., and Peyron, C. (2014). Paradoxical (REM) sleep deprivation in mice using the small-platforms-over-water method: polysomnographic analyses and melanin-concentrating hormone and hypocretin/orexin neuronal activation before, during and after deprivation. J Sleep Res.
- Chauveau, F., Laudereau, K., **Libourel, P.A.**, Gervasoni, D., Thomasson, J., Poly, B., Pierard, C., and Beracochea, D. (2014). Ciproxifan improves working memory through increased prefrontal cortex neural activity in sleep-restricted mice. Neuropharmacology 85, 349–356.
- Clement, O., Garcia, S.V., **Libourel, P.A.**, Arthaud, S., Fort, P., and Luppi, P.H. (2014). The Inhibition of the Dorsal Paragigantocellular Reticular Nucleus Induces Waking and the Activation of All Adrenergic and Noradrenergic Neurons: A Combined Pharmacological and Functional Neuroanatomical Study. Plos One 9.
- Garcia, S.V., **Libourel, P.A.**, Cherasse, Y., Lazarus, M., Luppi, P.H., and Fort, P. (2014). Genetic inactivation of glutamatergic neurons within the pontine sublaterodorsal tegmental nucleus induces REM sleep behaviour disorder (RBD) in rats. J Sleep Res 23, 93–93.
- **Libourel, P.A.**, Corneyllie, A., Luppi, P.H., Chouvet, G., and Gervasoni, D. (2014). Unsupervised Online Classifier in Sleep Scoring for Sleep Deprivation Studies. Sleep.
- Parker, T., **Libourel, P.A.**, Hetheridge, M.J., Cumming, R.I., Sutcliffe, T.P., Goonesinghe, A.C., Ball, J.S., Owen, S.F., Chomis, Y., and Winter, M.J. (2014). A multi-endpoint in vivo larval zebrafish (Danio rerio) model for the assessment of integrated cardiovascular function. J. Pharmacol. Toxicol. Methods 69, 30–38.

2013

- El Daou, H., **Libourel, P.A.**, Renous, S., Bels, V., and Guinot, J.C. (2013). Methods and Experimental Protocols to Design a Simulated Bio-Mimetic Quadruped Robot. Int. J. Adv. Robot. Syst. 10.

2012

- Arthaud, S., **Libourel, P.A.**, Gervasoni, D., Fort, P., and Luppi, P.H. (2012). Selective paradoxical sleep deprivation in mice using a new unsupervised automatic method. J Sleep Res 21, 326–326.
- Bonneau, N., **Libourel, P.A.**, Simonis, C., Puymerail, L., Baylac, M., Tardieu, C., and Gagey, O. (2012). A three-dimensional axis for the study of femoral neck orientation. J Anat 221, 465–476.
- Clement, O., Sapin, E., **Libourel, P.A.**, Arthaud, S., Fort, P., and Luppi, P.H. (2012). Evidence that the lateral hypothalamic area controls paradoxical (REM) sleep by means of descending projections to brainstem GABAergic neurons. J Sleep Res 21, 193–193.
- Clement, O., Sapin, E., **Libourel, P.A.**, Arthaud, S., Brischoux, F., Fort, P., and Luppi, P.H. (2012). The Lateral Hypothalamic Area Controls Paradoxical (REM) Sleep by Means of Descending Projections to Brainstem GABAergic Neurons. J Neurosci 32, 16763–16774.
- Daghfous, G., Smargiassi, M., **Libourel, P.A.**, Wattiez, R., and Bels, V. (2012). The Function of Oscillatory Tongue-Flicks in Snakes: Insights from Kinematics of Tongue-Flicking in the Banded Water Snake (Nerodia fasciata). Chem Senses 37, 883–896.
- Luppi, P.H., Clement, O., Sapin, E., **Libourel, P.A.**, Arthaud, S., and Fort, P. (2012). Hypothalamic regulation of REM sleep. J Sleep Res 21, 3–3.
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Daillie, S., and Bels, V.L. (2012). Flexibility in locomotor-feeding integration during prey capture in varanid lizards: effects of prey size and velocity. J Exp Biol 215, 3823–3835.
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Daillie, S., and Bels, V.L. (2012). Prey capture in lizards: differences in jaw-neck-forelimb coordination. Biol. J. Linn. Soc. 105, 607–622.
- Renouard, L., Fort, P., Ogawa, K., Clement, O., Billwiller, F., Camargo, N., Abdelkarim, M., Gervasoni, D., Gay, N., Scote, C., et al. (2012). The supramammillary nucleus activates cortical structures during paradoxical (REM) sleep. J Sleep Res 21, 89–89.

2011

- Abourachid, A., Hackert, R., Herbin, M., **Libourel, P.A.**, Lambert, F., Gioanni, H., Provini, P., Blazevic, P., and Hugel, V. (2011). Bird terrestrial locomotion as revealed by 3D kinematics. Zoology 114, 360–368.
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Daillie, S., and Bels, V. (2011). Modulation of the movements of the trophic and locomotor systems in response to prey size and velocity in Lizards. Integr. Comp. Biol. 51, E94–E94.

2010

- Auclerc, A., **Libourel, P.A.**, Salmon, S., Bels, V., and Ponge, J.F. (2010). Assessment of movement patterns in Folsomia candida (Hexapoda: Collembola) in the presence of food. Soil Biol. Biochem. 42, 657–659.
- Boistel, R., Herrel, A., Daghfous, G., **Libourel, P.A.**, Boller, E., Tafforeau, P., and Bels, V. (2010). Assisted walking in Malagasy dwarf chamaeleons. Biol. Lett. 6, 740–743.
- El Daou, H., **Libourel, P.A.**, Renous, S., Bels, V., and Guinot, J.C. (2010). Motion and Force measures on tortoises to design and control a biomimetic quadruped robot. Romansy 18 Robot Des. Dyn. Control 175–182.
- Legreneur, P., Thevenet, F.R., **Libourel, P.A.**, Monteil, K.M., Montuelle, S., Pouydebat, E., and Bels, V. (2010). Hindlimb interarticular coordinations in Microcebus murinus in maximal leaping. J Exp Biol 213, 1320–1327
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Reveret, L., and Bels, V.L. (2010). Separating the effects of prey size and speed on the kinematics of prey capture in the omnivorous lizard Gerrhosaurus major. J Comp Physiol Neuroethol Sens Neural Behav Physiol 196, 491–499.

2009

- Baussart, S., Korsoun, L., **Libourel, P.A.**, and Bels, V. (2009). Ballistic food transport in toucans. J Exp Zool Ecol Genet Physiol 311, 465–474.
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Reveret, L., and Bels, V.L. (2009). Lizards Adjust Movements as They Bite. J Exp Biol 212, Ii–Ii.
- Montuelle, S.J., Herrel, A., **Libourel, P.A.**, Reveret, L., and Bels, V.L. (2009). Locomotor-feeding coupling during prey capture in a lizard (Gerrhosaurus major): effects of prehension mode. J Exp Biol 212, 768–777.

2008

- El Daou, H., **Libourel, P.A** Renous, S., Bels, V., and Guinot, J. (2008). Biomimetic analysis of locomotion in tortoise, Geochelone graeca. Comp. Biochem. Physiol. -Mol. Integr. Physiol. 150, S87–S87.
- Hackert, R., Maes, L.D., Herbin, M., **Libourel, P.A.**, and Abourachid, A. (2008). Limb preference in the gallop of dogs and the half-bound of pikas on flat ground. Laterality 13, 310–319.
- Montuelle, S., Kardong, K., Russell, A., **Libourel, P.A** , and Bels, V. (2008). Drinking behaviour in a Gekkotan lizard, Eublepharis maculailus. Comp. Biochem. Physiol. -Mol. Integr. Physiol. 150, S91–S91.
- Montuelle, S., Reveret, L., **Libourel, P.A** , and Bels, V. (2008). Integration of trophic system and locomotor apparatus during predatory behaviour in Tupinambis merianae. Comp. Biochem. Physiol. -Mol. Integr. Physiol. 150, S84–S84.

2007

- Hackert, R., Hugel, V., Herbin, M., **Libourel, P.A.**, and Abourachid, A. (2007). 3D-reconstruction of the quail trunk and limb kinematics from 2D videoradiographical views. J Morphol 268, 1080–1080.

Invited talks

- Mai 2019, “The challenge to record sleep in a comparative and ecological context.”, Comparative imaging congress, Bochum, Germany.
- March 2019, “Where does Sleep states come from?”, Sleep days, Lyon, France,
- February 2019, “Nature and origin of sleep states”, Neuropsy Lab, Orsay, France
- January 2019, “What is sleep?”, Institut Langevin, Paris, France
- September, 2018, “Do reptiles sleep like us?”, ENES, Saint Etienne, France
- March 2018 Gordon seminar, Sleep regulation and functions: section Phylogeny and evolution of sleep, “Do Reptiles Sleep Like Mammals and Birds? A Behavioral and Electrophysiological Study of the Black and White Tegu (*Salvator merianae*)”, Galveston USA.
- February 2017 “Phylogeny of sleep”, Institut des neuroscience Paris Saclay, France
- June 2016, “ Do reptiles sleep of a remote past? “, 11 minutes of sleep Pise, Italia
- November 2015, « Le sommeil des reptiles » SFMRS, Nantes, France
- September 2014, datablitz sommeil , Lyon, France

Conference

- Yamazaki R, De Laet A, Lee H, Wang D, Arthaud S, Libourel PA, Fort P, Luppi PH. First demonstration that different neurons are activated during paradoxical (rem) sleep and waking using the trap mice method. 7th Mediterranean neuroscience conference, 2019, Marrakesh (Morocco)
- Luppi PH, Yamazaki R, De Laet A, Wang D, Lee H, Arthaud S, Libourel PA, Fort P. First demonstration that different neurons are activated during paradoxical (REM) sleep and waking using the trap mice method. 14th colloque de la société française des neurosciences, 2019, Marseille (France).
- Peyron C, Roman A, Villalba M, Libourel PA. Is cataplexy a dissociated state of paradoxical (REM) sleep? Role of the glutamatergic neurons of the sublaterodorsal nucleus in a mouse model of narcolepsy type 1, Annual meeting of the society for Neuroscience, San Diego (USA) 2018.
- Libourel, P. A., B. Massot, S. Arthaud , B. Barrillot, J. Roux, G. Ungurean, P.-H.Luppi., N.C. Rattenborg (2018)."ONEIROS, a new miniature standalone device for recording sleep electrophysiology, physiology, temperature and end behavior in the lab and field." Society For Neurosciences, Chicago. Libourel, P. A., B. Barillot , S.Arthaud, B. Massot, A. L. Morel, O. Beuf A. Herrel, P.-H. Luppi (2018)."Do reptiles sleep like mammals and birds)." Gordon Research conference, Sleep regulation and function, Galveston, USA.
- Valencia Garcia S, Libourel PA, Lazarus M, Luppi PH, Fort P. Genetic inactivation of glutamatergic neurons within the pontine sublaterodorsal tegmental nucleus induces rem sleep behaviour disorder (rbd) in rats. 10th forum of the federation of european neuroscience societies (FENS), 2016, Copenhagen (Denmark).
- Libourel, P. A., S. Arthaud , B. Massot, E. Van Reeth, A. L. Morel, M. Sdika, Beuf O.,Luppi P. H. (2015)."Behavioral and wireless electrophysiological characterization of sleep in a lizard, the Argentine Tegu (Tupinambis merianae)." Society For Neurosciences, Chicago.
- Libourel, P. A., and Herrel A. (2015)." Evolution of sleep patterns in amphibians and reptiles." World Sleep Congress, Istanbul.
- Libourel, P. A., S. Arthaud , B. Massot, E. Van Reeth, A. L. Morel, M. Sdika, Beuf O.,Luppi P. H. (2015)."Behavioral and wireless electrophysiological characterization of sleep in a lizard, the Argentine Tegu (Tupinambis merianae)." World Sleep Congress, Istanbul.
- Arthaud, S., C. Varin, P. A. Libourel, P. Fort, P. H. Luppi and C. Peyron (2014). "Efficient paradoxical (REM) sleep homeostatic regulation in mice: reports on sleep architecture and neuronal activation." Journal of Sleep Research 23: 270-271.
- Garcia, S. V., P. A. Libourel, Y. Cherasse, M. Lazarus, P. H. Luppi and P. Fort (2014). "Genetic inactivation of glutamatergic neurons within the pontine sublaterodorsal tegmental nucleus induces REM sleep behaviour disorder (RBD) in rats." Journal of Sleep Research 23: 93-93.
- Arthaud, S., P. A. Libourel, D. Gervasoni, P. Fort and P. H. Luppi (2012). "Selective paradoxical sleep deprivation in mice using a new unsupervised automatic method." Journal of Sleep Research 21: 326-326.
- Clement, O., E. Sapin, P. A. Libourel, S. Arthaud, P. Fort and P. H. Luppi (2012). "Evidence that the lateral hypothalamic area controls paradoxical (REM) sleep by means of descending projections to brainstem GABAergic neurons." Journal of Sleep Research 21: 193-193.
- Libourel, P. A., S. Jego, F. Brischoux, J. Nigri, S. Arthaud, P. Fort, P. H. Luppi and D. Gervasoni (2012). "Unsupervised paradoxical sleep deprivation using real-time sleep scoring in rats: a new alternative to the 'flower pot' technique." Journal of Sleep Research 21: 326-327.
- Luppi, P. H., O. Clement, E. Sapin, P. A. Libourel, S. Arthaud and P. Fort (2012). "Hypothalamic regulation of REM sleep." Journal of Sleep Research 21: 3-3.
- Renouard, L., P. Fort, K. Ogawa, O. Clement, F. Billwiller, N. Camargo, M. Abdelkarim, D. Gervasoni, N. Gay, C. Scote, P. A. Libourel, P. Ravassard, D. Salvert, C. Peyron, B. Claustrat, L. Leger, P. A. Salin, G. Malleret and P. H. Luppi (2012). "The supramammillary nucleus activates cortical structures during paradoxical (REM) sleep." Journal of Sleep Research 21: 89-89.
- Libourel, P. A., A. Corneyllie, G. Chouvet, P. Luppi and D. Gervasoni (2011). Adaptative algorithm and real time polygraphic processing design for a new method of rodent paradoxical sleep deprivation Société des neurosciences, Marseille.
- Libourel, P. A., A. Corneyllie, G. Chouvet, P. Luppi and D. Gervasoni (2011). Unsupervised Paradoxical Sleep Deprivation Using Polygraphic Signals in Rats: A New Alternative to the "Flower Pot" Technique. Society For Neurosciences, San Diego.
- Libourel, P. A., A. Corneyllie, G. Chouvet, P. Luppi and D. Gervasoni (2011). "Unsupervised Paradoxical Sleep Deprivation Using Polygraphic Signals in Rats: A New Alternative to the "Flower Pot" Technique." Sleep 34: A110-A110.

- Montuelle, S. J., A. Herrel, P. A. Libourel, S. Daillie and V. Bels (2011). "Modulation of the movements of the trophic and locomotor systems in response to prey size and velocity in Lizards." Integrative and Comparative Biology 51: E94-E94.
- Bonneau, N., C. Simonis, J. Bouhalier, P. A. Libourel, O. Gagey and C. Tardieu (2010). Réflexion méthodologique sur l'effet du réassemblage des os du bassin : conséquences sur l'étude de la conformation pelvienne. SAP, Paris.
- Clement, O., P. Charrie, D. Salvert, N. Mandier, P. A. Libourel, P. Luppi, P. Salin and G. Malleret (2010). Paradoxical (REM) sleep, BDNF and the reprocessing of stressful experience. Society for Neurosciences, San Diego.
- Montuelle, S. J., A. Herrel, P. A. Libourel, L. Reveret and V. L. Bels (2009). "Lizards Adjust Movements as They Bite." Journal of Experimental Biology 212(6): Ii-Ii.
- Daghfous, G., P. A. Libourel, L. Reveret and V. Bels (2008). Best of both worlds: Prey capture behaviour in banded watersnake (Nerodia fasciata). Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology, Marseille.
- El Daou, H., P. A. Libourel, S. Renous, V. Bels and J. Guinot (2008). "Biomimetic analysis of locomotion in tortoise, Geochelone graeca." Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology 150(3): S87-S87.
- Montuelle, S., K. Kardong, A. Russell, P. A. Libourel and V. Bels (2008). "Drinking behaviour in a Gekkotan lizard, Eublepharis maculailus." Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology 150(3): S91-S91.
- Montuelle, S., L. Reveret, P. A. Libourel and V. Bels (2008). "Integration of trophic system and locomotor apparatus during predatory behaviour in Tupinambis merianae." Comparative Biochemistry and Physiology a-Molecular & Integrative Physiology 150(3): S84-S84.
- Palombi, O., L. Reveret, P. Bessou, M. Herbin, P. A. Libourel and P. Kry (2008). Représentation en 3D du squelette des membres pelviens du rat au cours de la marche 90e Congrès de l'Association des Morphologistes. Bordeaux.
- Hackert, R., V. Hugel, M. Herbin, P. A. Libourel and A. Abourachid (2007). "3D-reconstruction of the quail trunk and limb kinematics from 2D videoradiographical views." Journal of Morphology 268(12): 1080-1080.

OTHERS

Press and Media :

2018

France Inter interview, la tete au carré, A quoi rêvent les lézard?
CNRS, Les lézards rêvent-ils comme nous?
Science Daily, Do lizards dream like us?
Cosmo magazine, The small dreams of lizards.
Sciences et avenir, les lézards rêvent ils?

2017

Radio canada interview : les samedi du monde, le rêve animal
Scientific consultant: le sommeil des animaux, Grandeur nature (France 2), un film de Pascal Cardeilhac (Caroline BROUSSAUD & MFP)
Libre Belgique, pourquoi dors t-on ?
Science et avenir, les origines du sommeil Sciences et vie, rêves animaux

2016

Le progres, Pourquoi a-t-on besoin de dormir?
BBC Earth, What is the real reason we sleep?

2015

INEE CNRS Qu'avons-nous à apprendre du sommeil des reptiles et des amphibiens ?
Billet journal CRNS : Pourquoi dormons nous ?

Awards

2014: Award of the French sleep research society

Patents and valorization:

2018: development of a light sleep bio logger capable to record up to 14 electrophysiological channels up to a week in the wild, transfer to a private company
2013: development of an unsupervised sleep scoring algorithm, transfer to a private company
2013: Development of a stress less selective sleep deprivation chamber for rodents, transfer to a private company

Grants :

2019: IXXI, BIOSYL, Project AMPHISLEEP, 5k€, starting grant, multimodal wireless recording of sleep in toads, coordinator of the project

2015: CNRS PEPS EXOMOD, PHYLOREM, 40k€, Development of the reptilian model to understand the origin of REM sleep, coordinator of the project

2013: IDEX LYON 1 PALSE, Project NEUROMETHS 300 k€, (development of new methods for the neurosciences), Coordinator of the project