Research interests

Infant development

Animal and human behavior

Neurosciences

Ethology

Biography

I am Doctor Ph.D. in ethology. I first studied during my thesis the effects of prenatal stress on the cognitive development of a cephalopod (cuttlefish sepia officinalis). After, I did a first postdoctoral fellowship in developmental psychology where I worked on multisensory development in children from 0 to 1 year old. Currently, my postdoctoral research aims to understand the cognitive and socioemotional development of children from 3 to 6 years old.

CV

2021/en cours : Postdoctoral position in Neurosciences. Toulouse School of Economics, INRAE, University of Toulouse Capitole (France). Centre de recherche Cerveau et Cognition (CerCo) - CNRS UMR 5549. Toulouse.
Subject: socio-emotional learning and cognitive development.
Advisor: C. FARRER.

2019/2020: Postdoctoral position in Psychology; University of Bourgogne-Franche-Comté (France).
Centre for Taste and Feeding Behavior (CSGA) of Dijon; Team 7: "Development ethology and cognitive psychology". Advisor: F. DAMON. Group leader: B. SCHAAL.
Subject: Development of multisensory processing in infants.

2015/2019: Ph.D. Ethology, University of Caen Normandie (France).
EthoS laboratory; team NECC "Cognitive Neuroethology of Cephalopods"
Subject: Perinatal perception and learning in cuttlefish: Comparative approach and effect of prenatal stress. Supervisor: A-S DARMAILLACQ. Group leader: L. DICKEL.

2014/2015: M.Sc. Neurosciences, University of Caen Normandie (France).
Specialty: Behavioral Sciences

2012/2014: M.Sc. Ethology, University of Rennes 1 (France).
Specialty: Animal and Human behavior

2008/2012: B.Sc. Biology of Organisms, University of Rennes 1 (France).

Publication

Mezrai, N., Houdelier, C., & Lumineau, S. (*submitted in Journal of Experimental Biology*). Prenatal auditory stimulation influence emotivity and social behaviour of quail chicks.

Damon, F., **Mezrai, N.**, Magnier, L., Leleu, A., Durand, K. et Schaal, B. (2021). Olfaction in the multisensory processing of faces: A narrative review of the influence of human body odors. *Frontiers in Psychology, section Perception Science.*

Klaey-Tassone, M., Durand, K., Damon F., Heyers, K., **Mezrai, N.,** Patris, B., Sagot, P., Soussigant, R., Schaal, B., and the Milkodor Consortium (2020). Human newborns prefer the odor of a milk from an early lactational stage. *American Journal of Human Biology*. https://doi.org/10.1002/ajhb.23521.

Mezrai, N., Arduini, L., Dickel, L., Chiao, C. C., & Darmaillacq, A. S. (2020). Awareness of danger inside the egg: Evidence of innate and learned predator recognition in cuttlefish embryos. *Learning and Behavior*. https://doi.org/10.3758/s13420-020-00424-7

Mezrai, N., Chiao, C. C., Dickel, L., & Darmaillacq, A. S. (2019). A difference in timing for the onset of visual and chemosensory systems during embryonic development in two closely related cuttlefish species. *Developmental psychobiology*. **61,** 1014-11021. https://doi.org/10.1002/dev.21868

O'Brien, C. E., Bellanger, C., Jozet-Alves, C., **Mezrai, N**., Darmaillacq, A. S., & Dickel, L. (2018). Stressful conditions affect reproducing cuttlefish (*Sepia officinalis*), reducing egg output and quality. *ICES Journal of Marine Science.* ***75****(6), 2060-2069*. https://doi.org/10.1093/icesjms/fsy115

Darmaillacq, A.-S., **Mezrai, N.,** O'Brien, C. E., & Dickel, L. (2017). Visual ecology and the development of visually guided behavior in the cuttlefish. *Frontiers in Physiology*. ***8****, 402.* https://doi.org/10.3389/fphys.2017.00402

O'Brien, C. E., **Mezrai, N.,** Darmaillacq, A.-S., & Dickel, L. (2017). Behavioral development in embryonic and early juvenile cuttlefish (*Sepia officinalis*). *Developmental Psychobiology*. ***59***(2), 145–160. https://doi.org/10.1002/dev.21476

O'Brien, C. E., Jozet-alves, C., **Mezrai, N.,** Bellanger, C., Darmaillacq, A.-S., & Dickel, L. (2017). Maternal and Embryonic Stress Influence Offspring Behavior in the Cuttlefish *Sepia officinalis. Frontiers in Physiology.* **8**, 981. https://doi.org/10.3389/fphys.2017.00981

Teaching

Teaching experiences at the University of Caen Normandie: 2016-2017 and 2017-2018 in ethology, ecology, neuroscience and psychology:

MSc (2nd year) Aquaculture: "Methodology in ecology - behavioral adaptation and environment: application to aquaculture"
BSc (3rd year) Psychology: "Problem solving in a corvid"
BSc (2nd year) Psychology: "Perinatal influences on behavioral development"
BSc (2nd and 3rd year) Psychology: "Methods of psychobiology"
BSc (1st year) Psychology: "Methodology in ethology"
BSc (1st year) Psychology: "Evolution of cooperation"