Alexa Sadier, PhD

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KEY WORDS

Eco-evo-devo, teeth, development, bats, novelty, deep homology

CURRENT AND PAST POSITIONS

January 2024 **CRCN CNRS – leading tenured researcher at ISEM Montpellier, France**

2020-present **Assistant Project Scientist (Research Associate)**
The origin of heterodonty in bats and mammals
University of California, Los Angeles, PI: Pr. Karen Sears

2017-2020 **Postdoctoral research associate**
Evo-devo of sensory adaptation and tooth development in Noctilionoid bats
University of California, Los Angeles, Advisor: Pr. Karen Sears

2015-2017 **Postdoctoral research associate**
Evo-devo of sensory adaptation in Noctilionoid bats
University of Illinois at Urbana-Champaign, Illinois, Advisor: Pr. Karen Sears

2014 **Postdoctoral scholar short-term (2 months)**
Ecole Normale Supérieure de Lyon, IGFL, Postdoctoral research position, 4 months

EDUCATION

2009-2013 **PhD in Evolutionary and Developmental Biology – Molecular Zoology group**
Ecole Normale Supérieure de Lyon, IGFL, France
Thesis: "Evo-devo of the Eda pathway, from the evolution of signaling to the establishment of shape". Advisors: Pr. Vincent Laudet and Dr. Sophie Pantalacci
Highest honors and felicitations from the committee

2007-2008 **Master 2 "high school and higher education"/Preparation à l'agrégation**
Ecole Normale Supérieure de Lyon, France, highest educational degree for highschool and undergrad education in Biology and Geology. Major: A, Molecular Biology
Agrégation: **admissible**; CAPES: **admitted**, position offered, **national ranking 4/3393**

2008-2009 **Master "research" Biosciences**
2006-2007 Ecole normale supérieure de Lyon, IGFL Master 1 and 2 - **With honors**
Theses: "Alternative isoforms of the *Edaradd* gene in evolution" and "The cryptic species diversity of the genus *Proasellus*". Advisors: Sophie Pantalacci and Vincent Laudet (2008-2009) and Christophe Douady (2006-2007)

2005-2006 **Licence in Molecular and Cellular Biology**
Ecole normale supérieure de Lyon, France – EU equivalent of Bachelor, 2 months lab experience – published research (see MBE 2008)
Supe rvisor: Sophie Pantalacci

CV – Alexa Sadier

AWARDS AND GRANTS

2023 ERC Consolidator grant – invitation for interview (September 2023)

2022 Wellcome Trust – Career Development Award – invitation for interview, not awarded

2021 UCLA Chancellor's award for postdoctoral research – awardee
The Chancellor's Award for Postdoctoral Research recognizes the 10 most important contributions (among the ~1400 postdocs from all disciplines) that postdoctoral scholars make to UCLA's research mission – **7500$**
https://www.postdoc.ucla.edu/chancellors-award-for-postdoctoral-research/

2020 NSF IOS grant - Leader investigator of the project - Collaborators: PIs Karen Sears (UCLA), Sharlene Santana (UW) and Paul François (Mc Gill)
Starting July 2020 – **600 k$**

2020 iBiology Young Scientists Seminar Award – winner
Talk available here: https://www.ibiology.org/evolution/bat-vision/

2017 MBI workshop travel grant – 600$

2012 Grant ARC (Research against Cancer Association) Foundation
Awarded a project on the role of EDAR in cancer – One year of full support ~20k €

2009 Teaching fellowship – "monitorat"
Extra salary for teaching activities including: TA, full lectures and full courses teaching and conception – 80h/year ~ 7.75k €/year

2009 MRT PhD fellowship
Supporting 3 years of salary for research - Ranked 3/50 (15/50 were awarded) ~12.25k €/year

PUBLICATIONS

*: equal contributions

Preprint and submitted articles:

David M. Grossnickle, **Alexa Sadier**, Edward Patterson, Nashaly N. Cortés-Viruet, Stephanie Jimenez Rivera, Karen E. Sears, Sharlene E. Santana On the cusp of adaptive change: the hierarchical radiation of phyllostomid bats. bioRxiv 2023.05.23.541856; https://doi.org/10.1101/2023.05.23.541856

Anthwal N, Rosa F, Koger M, Sears KE and **Sadier A**,. 2022. Bat cochlea reveals developmental constraints between sensory organs. BioRxiv– *submitted* **The anat record**

Sadier A, Anthwal N, Krause A, Dessalles R, Lake M, Bentolila L, Haase R, Nieves N, Santana S, Sears KE. 2022. Bat teeth illuminate the diversification of mammalian tooth classes. BioRxiv– ***accepted*** **Nature Communications** https://www.biorxiv.org/content/10.1101/2021.12.05.471324v3

Published:

Research articles:

2023

Gregory L. Mutumi, Ronald P. Hall, Brandon P. Hedrick, Laurel R. Yohe, **Alexa Sadier**, Kalina T.J. Davies, Liliana M. Dávalos, Stephen J. Rossiter, Karen E. Sears and Elizabeth R. Dumont Disentangling biomechanical and sensory modules in a hyper-diverse radiation **The Am Naturalist** https://doi.org/10.1086/725368

Neal Anthwal*, Daniel Urban*, **Alexa Sadier**, Risa Takenaka, Simon Spiro, Nancy Simmons, Karen Sears Control of Morphological Variation and Molecular Initiation of Novel Chiropteran Wing Membranes are Revealed by Embryonic Developmental Processes **BMC Biology** https://doi.org/10.1186/s12915-023-01598-y

2022

Yohe LR, Fabbri M, Lee D, Davies KTJ, Yohe TP, Sánchez MKR, Rengifo EM, Hall RP, Mutumi G, Hedrick BP, **Sadier A**, Simmons NB, Sears KE, Dumont E, Rossiter SJ, Bhullar B-AS, Dávalos LM. n.d. Ecological constraints on highly evolvable olfactory receptor genes and morphology in neotropical bats. Evolution n/a. https://doi.org/10.1111/evo.14591

Santana SE*, Grossnickle DM*, **Sadier A (co-first)***, Patterson E, Sears KE. 2022. Bat Dentitions: A Model System for Studies at the Interface of Development, Biomechanics, and Evolution. Integrative and Comparative Biology 62:762–73. https://academic.oup.com/icb/article/62/3/762/6586353?login=false

2021

Hall, R.P., Mutumi, G.L., Hedrick, B.P., Yohe, L.R., **Sadier, A.**, Davies, K.T.J., Rossiter, S.J., Sears, K., Dávalos, L.M. and Dumont, E.R. (2021), Find the food first: An omnivorous sensory morphotype predates biomechanical specialization for plant based diets in phyllostomid bats. **Evolution**. https://doi.org/10.1111/evo.14270

Nojiri T, Wilson LAB, López-Aguirre C, Tu VT, Kuratani S, Ito K, Higashiyama H, Son NT, Fukui D, **Sadier A**, Sears KE, Endo H, Kamihori S, Koyabu D. 2021. Embryonic evidence uncovers convergent origins of laryngeal echolocation in bats. **Current Biology** 31:1353-1365.e3. https://doi.org/10.1016/j.cub.2020.12.043

2020

Hedrick BP, Mutumi GL, Munteanu VD, **Sadier A**, Davies KTJ, Rossiter SJ, Sears KE, Dávalos LM, Dumont E. 2020. Morphological Diversification under High Integration in a Hyper Diverse Mammal Clade. J Mammal Evol 27:563–575 https://doi.org/10.1007/s10914-019-09472-x

2019

Sadier, A., Twarogowska, M., Steklikova, K., Hayden, L., Lambert, A., Schneider, P., Laudet, V., Hovorakova, M., Calvez, V., and Pantalacci, S. (2019). Modeling Edar expression reveals the hidden dynamics of tooth signaling center patterning. **PLoS Biol** 17, e3000064 https://doi.org/10.1371/journal.pbio.3000064

Vial, J., Royet, A., Cassier, P., Tortereau, A., Dinvaut, S., Maillet, D., Gratadou-Hupon, L., Creveaux, M., **Sadier, A.**, Tondeur, G., et al. (2019). The Ectodysplasin receptor EDAR acts as a tumor suppressor in melanoma by conditionally inducing cell death. **Cell Death Differ** 26, 443–454. https://doi.org/10.1038/s41418-018-0128-1

2018

Sadier*, A., Davies*, K.T., Yohe, L.R., Yun, K., Donat, P., Hedrick, B.P., Dumont, E.R., Davalos, L.M., Rossiter, S.J., and Sears, K.E. (2018). Multifactorial processes underlie parallel opsin loss in neotropical bats. **Elife** 7. https://elifesciences.org/articles/37412

Hedrick, B.P., Yohe, L., Vander Linden, A., Davalos, L.M., Sears, K., **Sadier, A.**, Rossiter, S.J., Davies, K.T.J., and Dumont, E. (2018). Assessing Soft-Tissue Shrinkage Estimates in Museum Specimens Imaged With Diffusible Iodine-Based Contrast-Enhanced Computed Tomography (diceCT). **Microsc Microanal** 24, 284–291. https://doi.org/10.1017/s1431927618000399

Before 2018

Urban, D.J., Anthwal, N., Luo, Z.-X., Maier, J.A., **Sadier, A.**, Tucker, A.S., and Sears, K.E. (2017). A new developmental mechanism for the separation of the mammalian middle ear ossicles from the jaw. **Proc Biol Sci** 284. https://doi.org/10.1098/rspb.2016.2416

Gibert, Y., Samarut, E., Pasco-Viel, E., Bernard, L., Borday-Birraux, V., **Sadier, A.**, Labbe, C., Viriot, L., and Laudet, V. (2015). Altered retinoic acid signalling underpins dentition evolution. **Proc Biol Sci** 282. https://royalsocietypublishing.org/doi/10.1098/rspb.2014.2764

Sadier, A., Lambert, E., Chevret, P., Decimo, D., Semon, M., Tohme, M., Ruggiero, F., Ohlmann, T., Pantalacci, S., and Laudet, V. (2015). Tinkering signaling pathways by gain and loss of protein isoforms: the

case of the EDA pathway regulator EDARADD. **BMC Evol Biol** 15, 129. https://doi.org/10.1186/s12862-015-0395-0

Pantalacci, S., Chaumot, A., Benoit, G., **Sadier, A.**, Delsuc, F., Douzery, E.J.P., and Laudet, V. (2008). Conserved features and evolutionary shifts of the EDA signaling pathway involved in vertebrate skin appendage development. **Mol Biol Evol** 25, 912–928. https://doi.org/10.1093/molbev/msn038

Review articles:

2022

Sadier A., Sears, K. and Womack, M. Unravelling the heritage of lost traits, **J Exp Part B.** https://doi.org/10.1002/jez.b.23030

2021

Aidan O Howenstine, **Alexa Sadier,** Neal Anthwal, Clive LF Lau, Karen E Sears, Non-model systems in mammalian forelimb evo-devo, Current Opinion in Genetics & Development, Volume 69, 2021, Pages 65-71, https://doi.org/10.1016/j.gde.2021.01.012

2020

Sadier A, Urban DJ, Anthwal N, Howenstine AO, Sinha I, Sears KE, Sadier A, Urban DJ, Anthwal N, Howenstine AO, Sinha I, Sears KE. 2020. Making a bat: The developmental basis of bat evolution. **Genetics and Molecular Biology** http://dx.doi.org/10.1590/1678-4685-gmb-2019-0146

Sadier A., Santana S., Sears K. The role of core and variable Gene Regulatory Network modules in tooth development and evolution (2020) **Integrative and Comparative Biology**, icaa116 https://doi.org/10.1093/icb/icaa116

Sadier, A., Jackman, W.R., Laudet, V and Gibert, Y. Vertebrate tooth type: is it signaled by a single organizing tooth? (2020) **BioEssays** 42 (6), 1900229 https://doi.org/10.1002/bies.201900229

C Darrin Hulsey, Karly E Cohen, Zerina Johanson, Nidal Karagic, Axel Meyer, Craig T Miller, **Alexa Sadier,** Adam P Summers, Gareth J Fraser (2020) Grand Challenges in Comparative Tooth Biology **Integrative and Comparative Biology** icaa038 https://doi.org/10.1093/icb/icaa038

Before 2020

Sears, K., Maier, J.A., **Sadier, A.**, Sorensen, D., and Urban, D.J. (2018). Timing the developmental origins of mammalian limb diversity. **Genesis** 56. https://doi.org/10.1002/dvg.23079

Sadier, A., Viriot, L., Pantalacci, S., and Laudet, V. (2014). The ectodysplasin pathway: from diseases to adaptations. **Trends Genet** 30, 24–31. https://doi.org/10.1016/j.tig.2013.08.006

BOOK CHAPTERS

Sadier, A., Soukup V. Initiation and periodic patterning of vertebrate dentitions In chapter in "Odontodes: The Developmental and Evolutionary Building Blocks of Dentitions", *accepted*

Sadier, A. (2019). How Do Gene Networks Promote Morphological Evolution. In Old Questions and Young Approaches to Animal Evolution, J.M. Martín-Durán, and B.C. Vellutini, eds. (Cham: Springer International Publishing), pp. 209–234.

Sadier, A.A. (2016). Regulatory and Coding Changes in Developmental Evolution, Roles of. In Encyclopedia of Evolutionary Biology, R.M. Kliman, ed. (Oxford: Academic Press), pp. 433–440.

CONFERENCE PRESENTATIONS

ICVM 2023 - oral communication – *invited speaker* Sadier Alexa, Dave Grossenickle, Sharlene Santana and Karen Sears Understanding the developmental foundation of extreme diversification of bat teeth

IBRC 2022 – oral communication Sadier Alexa for Karen Sears - Using Wild Bats to Investigate the Cellular Basis of Longevity

PanAmEvoDevo-SDB 2022 – oral communication – *invited speaker* Sadier Alexa, Dave Grossenickle, Sharlene Santana and Karen Sears Understanding the developmental foundation of extreme diversification of bat teeth

EuroEvoDevo 2022 – oral communication: Sadier Alexa, Dave Grossenickle, Sharlene Santana and Karen Sears - Understanding the developmental foundation of extreme diversification in bat molars

SICB 2022 – oral communication – oral communication: Sharlene Santana*, Dave Grossenickle*, Alexa Sadier* Bat dentitions: a model system for studies at the interface of development, biomechanics, and evolution

2nd Asia Evo conference – oral communication - *invited speaker* August 2021: Sadier Alexa, Sharlene Santana, Paul François and Karen Sears - Understanding the GRN behind bat molar extreme diversification

Bat1K symposium batellite meeting – oral communication: Sadier Alexa, Sharlene Santana, Paul François and Karen Sears - Understanding the GRN behind bat molar extreme diversification

SRC Pop-up Early career symposia 2020 / evo-devo – oral communication – *invited speaker*: Sadier Alexa, Andrew Krause, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Bat teeth at the cusp: Finding new rules for the patterning of post-canine teeth in mammals

SICB 2020 – oral communication – *invited speaker*: Sadier Alexa, Krause Andrew, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Finding new rules for the patterning of post-canine teeth in mammals

TMD 2019 – oral communication: Sadier Alexa, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Finding new rules for the patterning of post-canine teeth in mammals: insights from Noctilionoid bats

ICVM 2019 – oral communication – *invited speaker*: Sadier Alexa, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Finding new rules for the patterning of post-canine teeth in mammals: insights from Noctilionoid bats

NASBR 2018 – oral communication: Sadier Alexa, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Finding new rules for the patterning of post-canine teeth in mammals: insights from Noctilionoid bats

NASBR 2018 – poster: Sadier, Alexa; Sears, Karen New developmental constrained for the establishement of the molar row in Noctilionoid bats - Deciphering genomic and developmental mechanisms that underlie vision adaptations in noctilionoid bats

EuroEvoDevo 2018 – oral communication: Sadier Alexa, Dessalles Renaud, Nieves Natalie, Santana Sharlene and Karen Sears - Finding new rules for the patterning of post-canine teeth in mammals: insights from Noctilionoid bats

LASDB 2017 – oral communication: Sadier Alexa, Santana Sharlene and Karen Sears - Establishing dental patterning in noctilionoid bats

PanAmEvoDevo 2017 - oral communication: Sadier, Alexa; Davalos, Liliana; Dumont, Elizabeth; Rossiter, Stephen; Sears, Karen - Deciphering genomic and developmental mechanisms that underlie vision adaptations in noctilionoid bats

PanAmEvoDevo 2017 - poster: Sadier, Alexa; Sears, Karen - New developmental constrained for the establishement of the molar row in Noctilionoid bats

Morphogenesis workshop MBI 2017 - poster: Sadier, Alexa; Santana Sharlene, Sears, Karen - Modeling the developmental foundations of adaptive radiation

EuroEvoEvo 2016 - oral communication: Sadier, Alexa; Davalos, Liliana; Dumont, Elizabeth; Rossiter, Stephen; Sears, Karen - Deciphering genomic and developmental mechanisms that underlie vision adaptations in noctilionoid bats

PanAmEvoEvo 2015 - poster: Sadier A, Lambert E, Chevret P, Décimo D, Semon M, Tohmé M, Ruggiero F, Ohlman T, Pantalacci S, Laudet V. - Tinkering signaling pathways by gain and loss of protein isoforms: the case of the EDA pathway regulator EDARADD.

SMBE 2013 - **oral communication:** Sadier A, Pantalacci S, Besson M, Ohlmann T, Pantalacci S and Lauvet V - How conserved signaling pathways drive diversification: lessons from a phylogenetico-functional approach

TMD Tooth morphogenesis and differentiation 2013 - poster: Sadier A, Lambert A, Peltier M, Laudet V and Pantalacci S - Edar highlights the dynamics of molar row patterning

Euro Evo Devo 2012 - poster: Sadier A, Besson M, Chevret P, Ohlmann T, Pantalacci S and Laudet V - Mosaic evolution through gain/loss of protein isoforms: the case of EDARADD involved in epithelial appendages development

2nd Joint Meeting of the British and French Societies for Developmental Biology 2011 - poster: Sadier A, Lambert A, Laudet V and Pantalacci S - Edar as a positive regulator of tooth patterning.

Euro Evo Devo 2010 - poster: Sadier A, Chevret P, Lambert A, Pantalacci S and Laudet V - Evolution through gain/loss of protein isoforms: the case of EDARADD involved in epithelial appendages development

INVITED SEMINARS

2023 Origin and diversification of mammalian tooth classes **University of Strasbourg, France**

2023 Origin and diversification of mammalian tooth classes **CNRS, France**

2022 Developmental constrains driving phenotypic diversification: eco-evo-devo of bat dentition **CNRS, France**

2022 Developmental constraints shaping phenotypic diversification: bat eco-evo-devo **IGFL, France**

2021 Developmental constraints shaping phenotypic diversification: bat eco-evo-devo **CDB dept, UCL, UK**

2021 Developmental constraints shaping phenotypic diversification: bat eco-evo-devo **GEE dept, UCL, UK**

2021 Bat (teeth) as a new eco-evo-devo system for the evolution of developmental rules **ISEM Université de Montpellier, France**

2020 Bat teeth at the cusp: Finding new rules for the patterning of post-canine teeth in mammals**, McGill University, Montréal, Canada**

2019 Deciphering the rules that underlie species diversity: insight from African bats, **CBI, Yaoundé, Cameroon**

2019 Deciphering the rules that underlie species diversity: insight from Trinidadian bats, **University of St Augustine, Trinidad**

2016 Deciphering genomic and developmental mechanisms that underlie adaptive evolution in noctilionoid bats - **Indiana State University**

2013 Evo-devo of the Eda pathway, from the evolution of signaling to the establishment of shape - **University of Utah**

TEACHING EXPERIENCE AND MENTORING

Teaching

2022 **UCLA –** Guest lecture "Bat teeth as a research system to study the evolution of novelties"

2021 **UCLA –** MCB 160 Light microscopy, guest lecture – "Deep DIVE into bi-photon imaging"

2020 **UCLA –** MCB 160 Light microscopy, guest lecture – "Deep DIVE into bi-photon imaging"

2019 **UCLA -** Fiat Lux Class, invited lecture – how to be a field scientist

2016 **UIUC –** IB202 Anatomy and Physiology class

2013 **COMENIUS project -** Visiting researcher in high school for the European project COMENIUS http://ec.europa.eu/education/lifelong-learning-programme/comenius_en.htm

2009-2012 ENS Lyon, France – Teaching fellowship "monitorat"

*Full lecture – Next generation sequencing, applications and evolution – master level
*Full lecture – Genomic technics and GMO
*In-class activity: hormone and pathology, evolution of nuclear receptors,
*Development and supervision of a whole teaching course for Bachelor and Master
*Lab activities: 2/3 weeks lab session full time
*Med school teaching - TA
Total hours of teaching: 232 hours

Mentoring

PhD students

2020 **Aidan Howenstine UCLA PhD student –** experiment, review writing
Dissertation project "The developmental networks behind limb development"
Mentoring. Fieldwork training and mentoring.

2019 **Clive Lau, UCLA PhD student** – fieldwork training and mentoring.
Lab mentoring.

2018 **Kathryn Stanchack UW, PhD student –** fieldwork training and mentoring.

Undergraduates and master students

2022 **Marina Zernik** – undergraduate – full supervision, field assistant

2022 **Fred Rosa –** REU student – full supervision

2021 **Isaiah Milton** – postbac student – full supervision

2020 **Juan Mendez –** undergraduate, UCLA – full supervision

2017 **Natalie Nieves** – undergraduate, fieldwork in Puerto Rico, summer internship in the lab, co-author.

2017-2020 Jacqueline Piekos, undergrad – mentoring, full mentoring on lab project. Fieldwork training and mentoring.

2018-2020 Michael Koger UCLA undergrad - technics: morphometrics, molecular biology, project development, thesis writing, mentoring, soon to be co-author.
Thesis: « Developmental basis of cochlea evolution in bats »

2015-2017 Supervision et co-supervision of **10 undergrads - UIUC.**

Kun Yun Full supervision, co-author (Sadier et *al*. 2018), now PhD student at Mayo Clinic.

Elliot Berger Full supervision, now in med school, soon to be co-author.

2011 **Marc Besson** – Evo-devo of ectodermal appendages: *Edaradd* isoforms
Full supervision (master 1 student). Project, experiments, writing.

SCIENCE COMMUNICATION

Main outreach achievements

Since 2019 **Co-host of the French science podcast:** Podcast Science https://www.podcastscience.fm/ (~10k listeners per episode, 50k per month)

2021 **Coach for the iBiology "Share Your Research competition"** https://www.ibiology.org/syr-competition/

2017 **TEDx speaker** at TEDx Chamonix - https://www.youtube.com/watch?v=kFctP0vKL-4

Interviews, other outreach events

2023 **Collaboration with Marie Treibert, youtube channel « La boite à Curiosité »** for the realization of a video about our 2023 Trinidad fieldtrip.
2022 Scientific consultant for a scicom video on the youtube channel (out in 2023) **"Scilabus"**
2022 Scientific consultant for the comic book "L'odyssée évolutive" by Pierre Kerner and Max Sandon https://www.editions-delcourt.fr/series/serie-l-odyssee-evolutive
2022 Interviewed by AirZen radio https://tinyurl.com/yw92u37m and https://tinyurl.com/bdd4wc93
2021 Interviewed for the **podcast RadioBioClub** – "Fantastic Bats and Where They Live" https://soundcloud.com/user-386034408/dr-alexa-sadier-fantastic-bats-and-where-they-live
2020 **Skype a scientist –** 3 classes "How to make a bat?"
2019 **Exploring Your Universe –** UCLA outreach event https://www.exploringyouruniverse.org
2019 Interviewed by **Podcast Science** about bats and bat research (in French): https://www.podcastscience.fm/emission/2019/04/15/podcast-science-370-chauve-souris/
2019 Interviewed by the podcast **The Naked Scientists** about our eLife manuscript (see publications) https://www.thenakedscientists.com/articles/interviews/evolution-through-bats-eyes

2017 **Urbana Library** Bats, these fascinating animals
2015-2017 **IGB genome day** - Animation and creation of an outreach module
2009-2013 **Fête de la science** – annual outreach science festival, Lyon, France

Twitter collaborative accounts

2017 La bio au labo @laBioauLabo (French equivalent of @realscientist)
2016 En direct du labo (French equivalent of @biotweeps)

Public lectures

2007 and 2009 General scientific popularization seminar at the Réserve Naturelle des Aiguilles Rouges, Chamonix

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FIELDWORK

2023 **Belize –** field research in Lamanai, organized by Dr. Brock Felton and Dr. Nancy Simmons
2023 **Trinidad –** field leader of a 10 persons/4 labs team, permits requests, responsible for exporting the samples, bat captures, local collaborations
2022 **Belize –** field research in Lamanai, organized by Dr. Brock Felton and Dr. Nancy Simmons
2022 **Trinidad –** joint trip with a collaborator, local collaboration, sample collection
2019 **Cameroon –** trip co-organizer, field co-coordinator, responsible for exporting the samples, translator (French), bat capture, experiments, local reciprocal knowledge sharing and support
2019 **Trinidad –** trip organizer, including permit requests, exporting the samples, establishing local contact, support and reciprocal knowledge sharing
2019 **Dominican Republic –** trip organizer, including permit requests, exporting the samples, local contact, support and collaboration
2018 **Dominican Republic and Trinidad –** trip organizer, including permit requests, exporting the samples, local contact, support and collaboration
2017 Puerto Rico, Dominican Republic and Trinidad – field research, experiment, co-organizer
2017 Belize – field research in Lamanai, organized by Dr. Brock Felton and Dr. Nancy Simmons
2016 Puerto Rico and Belize

MUSEUM COLLECTIONS WORK

2018 Field museum, Chicago
2016 American Museum of Natural History – New York City

ACADEMIC ACTIVITIES AND SERVICE

January 2023: Associate editor, Gene

August 2022: GBatNet/BPEN – Leader of the international Evo-Devo phenomic group

December 2021: Member of the NASA AWG lab

October 2021: European Space Agency (ESA) Astronaut selection – Test phase 1 (1371/~23000 applicants) https://www.esa.int/About_Us/Careers_at_ESA/ESA_Astronaut_Selection

Since 2021: Editorial Board Member, BMC Eco Evo https://bmcecolevol.biomedcentral.com/

Since 2019: The Company of Biologists Prelighter, part of the @preLights community - See my prelights here: https://prelights.biologists.com/profiles/aigverte/

Society member: SigmaXi (nominated full member), EuroEvoDevo, PanAmEvoDevo, NASBR societies, SDB and BCI (Bat Conservation International), Bat1k genome project

Symposium and conference organizer

2018 Evolution - S-24 Evolution and development in deep time, merging insights from paleontology and developmental biology **with Ryan Felice, Montpellier, France**

2013 – TMD - Organizing committee

Reviewer for academic journals – eLife, BMC Evolutionary Biology, Proceeding of the Royal Society B, Evolution, Plos One, ICB, System Biology, Nature communications

Representative of the PhD students (elected) for the doctoral school Integrative Molecular and Cellular Biology (including meeting organisation (2009-2013)

COLLABORATORS

Sharlene Santana (UW), Elizabeth Dumont (UC Merced), Yann Gibert (UMC), Liliana Davalos (Stony Brook University), Paul François (Mc Gill), Andrew Krause (University of Oxford Mathematical Institute), Neal Anthwal (King's college London), Nancy Simmons (AMNH), Robert Haase (Dresden), Vincent Laudet (OIST), Sophie Pantalacci (LBMC, ENS Lyon), Aidan Couzens (UCLA), Guillaume Billet (MNHN), Helder Gomes-Rodrigues (MNHN), Omer Gokcumen (Buffalo University), Daisuke Koyabu (University of Tsukuba), Jasmin Camacho (Stowers), Ferdinand Marlétaz (UCL), Nicolas Goudemand (IGFL)

LANGUAGES

French (native), English (fluent), Spanish (beginner)

REFERENCES

Karen Sears – Professor, UCLA Chair, Dpt Ecology and Evolutionary Biology; ksears@ucla.edu
Sharlene Santana – Professor, University of Washington; ssantana@uw.edu
Sophie Pantalacci – Group leader, CR, LMBC, ENS Lyon; sophie.pantalacci@ens-lyon.fr
Vincent Laudet – Professor, OIST, Japan; vincent.laudet@oist.jp