

Facilities

Publications 2020-2024

2024

- Acharya A, Bret H, Huang J-W, Mütze M, Göse M, Kissling VM, Seidel R, Ciccio A, Guérois R, Cejka P. 2024. Mechanism of DNA unwinding by MCM8-9 in complex with HROB. *Nat Commun* **15**:3584. doi:[10.1038/s41467-024-47936-8](https://doi.org/10.1038/s41467-024-47936-8)
- Akiki P, Delamotte P, Poidevin M, van Dijk EL, Petit AJR, Le Rouzic A, Mery F, Marion-Poll F, Montagne J. 2024. Male manipulation impinges on social-dependent tumor suppression in *Drosophila melanogaster* females. *Sci Rep* **14**:6411. doi:[10.1038/s41598-024-57003-3](https://doi.org/10.1038/s41598-024-57003-3)
- Aleksandrov A, Bonvalet A, Müller P, Sorigué D, Beisson F, Antonucci L, Solinas X, Joffre M, Vos MH. 2024. Catalytic Mechanism of Fatty Acid Photodecarboxylase: On the Detection and Stability of the Initial Carbonyloxy Radical Intermediate. *Angewandte Chemie International Edition* **63**:e202401376. doi:[10.1002/anie.202401376](https://doi.org/10.1002/anie.202401376)
- Al-Qatabi N, Magdeleine M, Pagnotta S, Leforestier A, Degrouard J, Arteni AA, Lacas-Gervais S, Gautier R, Drin G. 2024. Characterization of atypical BAR domain-containing proteins coded by *Toxoplasma gondii*. *Journal of Biological Chemistry* **300**. doi:[10.1016/j.jbc.2024.107923](https://doi.org/10.1016/j.jbc.2024.107923)
- An J, Brik Chaouche R, Pereyra-Bistraín LI, Zalzalé H, Wang Q, Huang Y, He X, Dias Lopes C, Antunez-Sanchez J, Bergounioux C, Boulogne C, Dupas C, Gillet C, Pérez-Pérez JM, Mathieu O, Bouché N, Fragkostefanakis S, Zhang Y, Zheng S, Crespi M, Mahfouz MM, Ariel F, Gutierrez-Marcos J, Raynaud C, Latrasse D, Benhamed M. 2024. An atlas of the tomato epigenome reveals that KRYPTONITE shapes TAD-like boundaries through the control of H3K9ac distribution. *Proc Natl Acad Sci U S A* **121**:e2400737121. doi:[10.1073/pnas.2400737121](https://doi.org/10.1073/pnas.2400737121)
- Andjus S, Szachnowski U, Vogt N, Gioftsidi S, Hatin I, Cornu D, Papadopoulos C, Lopes A, Namy O, Wery M, Morillon A. 2024. Pervasive translation of Xrn1-sensitive unstable long noncoding RNAs in yeast. *RNA* **30**:662–679. doi:[10.1261/rna.079903.123](https://doi.org/10.1261/rna.079903.123)
- Auzat I, Ouldali M, Jacquet E, Fauler B, Mielke T, Tavares P. 2024. Dual function of a highly conserved bacteriophage tail completion protein essential for bacteriophage infectivity. *Commun Biol* **7**:1–12. doi:[10.1038/s42003-024-06221-6](https://doi.org/10.1038/s42003-024-06221-6)
- Babot M, Boulard Y, Agouda S, Pieri L, Fieulaine S, Bressanelli S, Gervais V. 2024a. Oligomeric assembly of the C-terminal and transmembrane region of SARS-CoV-2 nsp3. *Journal of Virology* **98**:e01575-23. doi:[10.1128/jvi.01575-23](https://doi.org/10.1128/jvi.01575-23)
- Babot M, Bressanelli S, Gervais V. 2024b. Autoassemblage de la partie C-terminale transmembranaire de la protéine nsp3 du virus SARS-CoV-2. *Med Sci (Paris)* **40**:498–500. doi:[10.1051/medsci/2024067](https://doi.org/10.1051/medsci/2024067)
- Bischerour J, Arnaiz O, Zangarelli C, Régnier V, Iehl F, Ropars V, Charbonnier J-B, Bétermier M. 2024. Uncoupling programmed DNA cleavage and repair scrambles the *Paramecium* somatic genome. *Cell Reports* **43**. doi:[10.1016/j.celrep.2024.114001](https://doi.org/10.1016/j.celrep.2024.114001)
- Bousmah Y, Noiray M, Jalaber H, Pasquier H, Béatrice Valerio-Lepiniec M, Urvoas A, Erard M. 2024. pH Sensitivity of YFPs is Reduced Upon AlphaRep Binding: Proof of Concept in Vitro and in Living Cells. *ChemBioChem* **25**:e202400287. doi:[10.1002/cbic.202400287](https://doi.org/10.1002/cbic.202400287)

- Bouznif B, Boukherissa A, Jaszczyszyn Y, Mars M, Timchenko T, Shykoff JA, Alunni B. 2024. Complete and circularized genome sequences of five nitrogen-fixing *Bradyrhizobium* sp. strains isolated from root nodules of peanut, *Arachis hypogaea*, cultivated in Tunisia. *Microbiology Resource Announcements* **13**:e01078-23. doi:[10.1128/mra.01078-23](https://doi.org/10.1128/mra.01078-23)
- Bret H, Gao J, Zea DJ, Andreani J, Guerois R. 2024. From interaction networks to interfaces, scanning intrinsically disordered regions using AlphaFold2. *Nat Commun* **15**:597. doi:[10.1038/s41467-023-44288-7](https://doi.org/10.1038/s41467-023-44288-7)
- Ceppi I, Dello Stritto MR, Mütze M, Braunschier S, Mengoli V, Reginato G, Vö HMP, Jimeno S, Acharya A, Roy M, Sanchez A, Halder S, Howard SM, Guérois R, Huertas P, Noordermeer SM, Seidel R, Cejka P. 2024. Mechanism of BRCA1–BARD1 function in DNA end resection and DNA protection. *Nature* **634**:492–500. doi:[10.1038/s41586-024-07909-9](https://doi.org/10.1038/s41586-024-07909-9)
- Chades T, Le Fèvre R, Chebbi I, Blondeau K, Guyot F, Alphandéry E. 2024. Set-up of a pharmaceutical cell bank of *Magnetospirillum gryphiswaldense* MSR1 magnetotactic bacteria producing highly pure magnetosomes. *Microbial Cell Factories* **23**:70. doi:[10.1186/s12934-024-02313-4](https://doi.org/10.1186/s12934-024-02313-4)
- Chan Ho Tong L, Jourdiere E, Naquin D, Ben Chaabane F, Aouam T, Chartier G, Castro González I, Margeot A, Bidard F. 2024. Transgressive phenotypes from outbreeding between the *Trichoderma reesei* hyper producer RutC30 and a natural isolate. *Microbiology Spectrum* **12**:e00441-24. doi:[10.1128/spectrum.00441-24](https://doi.org/10.1128/spectrum.00441-24)
- Dauba A, Spitzlei C, Bautista KJB, Jourdain L, Selingue E, VanTreeck KE, Mattern JA, Denis C, Ouldali M, Arteni A-A, Truillet C, Larrat B, Tsuruta J, Durham PG, Papadopoulou V, Dayton PA, Tsapis N, Novell A. 2024. Low-boiling-point perfluorocarbon nanodroplets for adaptable ultrasound-induced blood-brain barrier opening. *Journal of Controlled Release* **376**:441–456. doi:[10.1016/j.jconrel.2024.10.023](https://doi.org/10.1016/j.jconrel.2024.10.023)
- Giacalone G, Quaillet M, Huang N, Nicolas V, Boulogne C, Gillet C, Fattal E, Bochot A, Hillaireau H. 2024. An injectable, nanostructured implant for the delivery of adenosine triphosphate: towards long-acting formulations of small, hydrophilic drugs. *Drug Deliv Transl Res* **14**:2146–2157. doi:[10.1007/s13346-024-01631-9](https://doi.org/10.1007/s13346-024-01631-9)
- González-Reyes M, Aragón J, Sánchez-Trujillo A, Rodríguez-Martínez G, Duarte K, Eleftheriou E, Barnier J-V, Naquin D, Thermes C, Romo-Yáñez J, Roger JE, Rendon A, Vaillend C, Montanez C. 2024. Expression of Dystrophin Dp71 Splice Variants Is Temporally Regulated During Rodent Brain Development. *Mol Neurobiol* **61**:10883–10900. doi:[10.1007/s12035-024-04232-2](https://doi.org/10.1007/s12035-024-04232-2)
- Guedes JP, Boyer JB, Elurbide J, Carte B, Redeker V, Sago L, Meinel T, Côte-Real M, Giglione C, Aldabe R. 2024. NatB Protects ProCaspase-8 from UBR4-Mediated Degradation and Is Required for Full Induction of the Extrinsic Apoptosis Pathway. *Molecular and Cellular Biology* **44**:358–371. doi:[10.1080/10985549.2024.2382453](https://doi.org/10.1080/10985549.2024.2382453)
- Haas D, Barba M, Vicente CM, Nezbedová Š, Garénaux A, Bury-Moné S, Lorenzi J-N, Hôtel L, Laureti L, Thibessard A, Le Goff G, Ouazzani J, Leblond P, Aigle B, Pernodet J-L, Lespinet O, Lautru S. 2024. Synteruptor: mining genomic islands for non-classical specialized metabolite gene clusters. *NAR Genomics and Bioinformatics* **6**:lqae069. doi:[10.1093/nargab/lqae069](https://doi.org/10.1093/nargab/lqae069)
- Hadji H, Cailleau C, Chassaing B, Bourge M, Ponchel G, Bouchemal K. 2024. Hyaluronan nanoplatelets exhibit extended residence time compared to spherical and ellipsoidal nanomaterials with equivalent surface potentials and volumes after oral delivery in rats. *Biomater Sci* **12**:5812–5823. doi:[10.1039/D4BM00672K](https://doi.org/10.1039/D4BM00672K)
- Hei Z, Yang S, Ouyang G, Hanna J, Lepoivre M, Huynh T, Aguinaga L, Cassinat B, Maslah N, Bourge M, Golinelli-Cohen M-P, Guittet O, Vallières C, Vernis L, Fenaux P, Huang M-E. 2024. Targeting the redox

- vulnerability of acute myeloid leukaemia cells with a combination of auranofin and vitamin C. *British Journal of Haematology* **205**:1017–1030. doi:[10.1111/bjh.19680](https://doi.org/10.1111/bjh.19680)
- Jaffal H, Kortebi M, Misson P, Tavares P, Ouldali M, Leh H, Lautru S, Lioy VS, Lecointe F, Bury-Moné SG. 2024. Prophage induction can facilitate the in vitro dispersal of multicellular *Streptomyces* structures. *PLOS Biology* **22**:e3002725. doi:[10.1371/journal.pbio.3002725](https://doi.org/10.1371/journal.pbio.3002725)
- Jouan R, Lextrait G, Lachat J, Yokota A, Cossard R, Naquin D, Timchenko T, Kikuchi Y, Ohbayashi T, Mergaert P. 2024. Transposon sequencing reveals the essential gene set and genes enabling gut symbiosis in the insect symbiont *Caballeronia insecticola*. *ISME Communications* **4**:ycad001. doi:[10.1093/ismeco/ycad001](https://doi.org/10.1093/ismeco/ycad001)
- Kaňa R, Eichner M, Gall A, Iliaia C. 2024. Spatial heterogeneity in the photobiology of phototrophs—questions and methods. *Front Photobiol* **2**. doi:[10.3389/fphbi.2024.1384522](https://doi.org/10.3389/fphbi.2024.1384522)
- Karri S, Cornu D, Serot C, Biri L, Hatton A, Dréanot E, Rullaund C, Pranke I, Sermet-Gaudelus I, Hinzpeter A, Bidou L, Namy O. 2024. TLN468 changes the pattern of tRNA used to read through premature termination codons in CFTR. *J Cyst Fibros* **23**:1185–1194. doi:[10.1016/j.jcf.2024.07.017](https://doi.org/10.1016/j.jcf.2024.07.017)
- Kreis V, Toffano-Nioche C, Denève-Larrazet C, Marvaud J-C, Garneau JR, Dumont F, van Dijk EL, Jaszczyszyn Y, Boutserin A, D'Angelo F, Gautheret D, Kansau I, Janoir C, Soutourina O. 2024. Dual RNA-seq study of the dynamics of coding and non-coding RNA expression during *Clostridioides difficile* infection in a mouse model. *mSystems* **9**:e00863-24. doi:[10.1128/msystems.00863-24](https://doi.org/10.1128/msystems.00863-24)
- Labarre C, Zhang Y, Lesur E, Ley M, Sago L, Dietrich C, de Sousa-d'Auria C, Constantinesco-Becker F, Baron A, Doisneau G, Urban D, Chevreux G, Guianvarc'h D, Bourdreux Y, Bayan N. 2024. Bioorthogonal Monomycolate of Trehalose Disclosed the O-Mycoloylation of Mycoloyltransferases and Other Cell Envelope Proteins in *C. glutamicum*. *ACS Chem Biol* **19**:2359–2371. doi:[10.1021/acschembio.4c00502](https://doi.org/10.1021/acschembio.4c00502)
- Lachat J, Lextrait G, Jouan R, Boukherissa A, Yokota A, Jang S, Ishigami K, Futahashi R, Cossard R, Naquin D, Costache V, Augusto L, Tissières P, Biondi EG, Alunni B, Timchenko T, Ohbayashi T, Kikuchi Y, Mergaert P. 2024. Hundreds of antimicrobial peptides create a selective barrier for insect gut symbionts. *Proceedings of the National Academy of Sciences* **121**:e2401802121. doi:[10.1073/pnas.2401802121](https://doi.org/10.1073/pnas.2401802121)
- Leuzzi G, Vasciaveo A, Taglialatela A, Chen X, Firestone TM, Hickman AR, Mao W, Thakar T, Vaitianskova A, Huang J-W, Cuella-Martin R, Hayward SB, Kesner JS, Ghasemzadeh A, Nambiar TS, Ho P, Rialdi A, Hebrard M, Li Y, Gao J, Gopinath S, Adeleke OA, Venters BJ, Drake CG, Baer R, Izar B, Guccione E, Keogh M-C, Guerois R, Sun L, Lu C, Califano A, Ciccio A. 2024. SMARCA1 is a dual regulator of innate immune signaling and PD-L1 expression that promotes tumor immune evasion. *Cell* **187**:861-881.e32. doi:[10.1016/j.cell.2024.01.008](https://doi.org/10.1016/j.cell.2024.01.008)
- Louçã M, El Akrouti D, Lemesle A, Louessard M, Dufour N, Baroin C, de la Fouchardière A, Cotter L, Jean-Jacques H, Redeker V, Perrier AL. 2024. Huntingtin lowering impairs the maturation and synchronized synaptic activity of human cortical neuronal networks derived from induced pluripotent stem cells. *Neurobiol Dis* **200**:106630. doi:[10.1016/j.nbd.2024.106630](https://doi.org/10.1016/j.nbd.2024.106630)
- Magne C, Streckaite S, Boto RA, Domínguez-Ojeda E, Gromova M, Echeverri A, Brigiano FS, Ha-Thi M-H, Fanckevičius M, Jašinskas V, Quaranta A, Pascal AA, Koepf M, Casanova D, Pino T, Robert B, Contreras-García J, Finkelstein-Shapiro D, Gulbinas V, Llansola-Portoles MJ. 2024. Perylene-derivative singlet exciton fission in water solution. *Chem Sci* **15**:17831–17842. doi:[10.1039/D4SC04732J](https://doi.org/10.1039/D4SC04732J)
- Mahmoudi I, Quignot C, Martins C, Andreani J. 2024. Structural comparison of homologous protein-RNA interfaces reveals widespread overall conservation contrasted with versatility in polar contacts. *PLoS Comput Biol* **20**:e1012650. doi:[10.1371/journal.pcbi.1012650](https://doi.org/10.1371/journal.pcbi.1012650)

- Mance L, Bigot N, Zhamungui Sánchez E, Coste F, Martín-González N, Zentout S, Biliškov M, Pukało Z, Mishra A, Chapuis C, Arteni A-A, Lateur A, Goffinont S, Gaudon V, Talhaoui I, Casuso I, Beaufour M, Garnier N, Artzner F, Cadene M, Huet S, Castaing B, Suskiewicz MJ. 2024. Dynamic BTB-domain filaments promote clustering of ZBTB proteins. *Mol Cell* **84**:2490-2510.e9. doi:[10.1016/j.molcel.2024.05.029](https://doi.org/10.1016/j.molcel.2024.05.029)
- Mathis H, Naquin D, Margeot A, Bidard F. 2024. Enhanced heterologous gene expression in *Trichoderma reesei* by promoting multicopy integration. *Appl Microbiol Biotechnol* **108**:470. doi:[10.1007/s00253-024-13308-x](https://doi.org/10.1007/s00253-024-13308-x)
- Mendoza-Munoz PL, Kushwaha ND, Chauhan D, Ali Gacem KB, Garrett JE, Dynlacht JR, Charbonnier J-B, Gavande NS, Turchi JJ. 2024. Impact of Optimized Ku–DNA Binding Inhibitors on the Cellular and In Vivo DNA Damage Response. *Cancers* **16**:3286. doi:[10.3390/cancers16193286](https://doi.org/10.3390/cancers16193286)
- Mezzetti A, Leibl W, Johnson JA, Beatty JT. 2024. Monitoring molecular events during photo-driven ubiquinone pool reduction in PufX+ and PufX– membranes from *Rhodobacter capsulatus* by time-resolved FTIR difference spectroscopy. *Plant Physiology and Biochemistry* **216**:109139. doi:[10.1016/j.plaphy.2024.109139](https://doi.org/10.1016/j.plaphy.2024.109139)
- Miron S, Legrand P, Dupaigne P, van Rossum-Fikkert SE, Ristic D, Majeed A, Kanaar R, Zinn-Justin S, Zelensky AN. 2024. DMC1 and RAD51 bind FxxA and FxPP motifs of BRCA2 via two separate interfaces. *Nucleic Acids Res* **52**:7337–7353. doi:[10.1093/nar/gkae452](https://doi.org/10.1093/nar/gkae452)
- Nicolas Y, Bret H, Cannavo E, Acharya A, Cejka P, Borde V, Guerois R. 2024. Molecular insights into the activation of Mre11-Rad50 endonuclease activity by Sae2/CtIP. *Molecular Cell* **84**:2223-2237.e4. doi:[10.1016/j.molcel.2024.05.019](https://doi.org/10.1016/j.molcel.2024.05.019)
- Nisler J, Klimeš P, Končítiková R, Kadlecová A, Voller J, Chalaki M, Karampelias M, Murvanidze N, Werbrouck SPO, Kopečný D, Havlíček L, De Diego N, Briozzo P, Moréra S, Zalabák D, Spíchal L. 2024. Cytokinin oxidase/dehydrogenase inhibitors: progress towards agricultural practice. *Journal of Experimental Botany* **75**:4873–4890. doi:[10.1093/jxb/erae239](https://doi.org/10.1093/jxb/erae239)
- Ouasti F, Audin M, Fréon K, Quivy J-P, Tachekort M, Cesard E, Thureau A, Ropars V, Fernández Varela P, Moal G, Soumana-Amadou I, Uryga A, Legrand P, Andreani J, Guerois R, Almouzni G, Lambert S, Ochsenbein F. 2024. Disordered regions and folded modules in CAF-1 promote histone deposition in *Schizosaccharomyces pombe*. *eLife* **12**:RP91461. doi:[10.7554/eLife.91461](https://doi.org/10.7554/eLife.91461)
- Oumerri J, Qayouh H, Arteni AA, Six J-L, Lahcini M, Ferji K. 2024. One-pot Formulation of Cationic Oligochitosan Coated Nanoparticles via Photo- Polymerization Induced Self-Assembly. *ChemPhysChem* **25**:e202400291. doi:[10.1002/cphc.202400291](https://doi.org/10.1002/cphc.202400291)
- Palayam M, Yan L, Nagalakshmi U, Gilio AK, Cornu D, Boyer F-D, Dinesh-Kumar SP, Shabek N. 2024. Structural insights into strigolactone catabolism by carboxylesterases reveal a conserved conformational regulation. *Nat Commun* **15**:6500. doi:[10.1038/s41467-024-50928-3](https://doi.org/10.1038/s41467-024-50928-3)
- Papadopoulos C, Arbes H, Cornu D, Chevrollier N, Blanchet S, Roginski P, Rabier C, Atia S, Lespinet O, Namy O, Lopes A. 2024. The ribosome profiling landscape of yeast reveals a high diversity in pervasive translation. *Genome Biol* **25**:268. doi:[10.1186/s13059-024-03403-7](https://doi.org/10.1186/s13059-024-03403-7)
- Perrier A, Guiglielmoni N, Naquin D, Gorrichon K, Thermes C, Lameiras S, Dammermann A, Schiffer PH, Brunstein M, Canman JC, Dumont J. 2024. Maternal inheritance of functional centrioles in two parthenogenetic nematodes. *Nat Commun* **15**:6042. doi:[10.1038/s41467-024-50427-5](https://doi.org/10.1038/s41467-024-50427-5)

- Poidevin M, Mazuras N, Bontonou G, Delamotte P, Denis B, Devilliers M, Akiki P, Petit D, Luca L de, Soulie P, Gillet C, Wicker-Thomas C, Montagne J. 2024. A fatty acid anabolic pathway in specialized-cells sustains a remote signal that controls egg activation in *Drosophila*. *PLOS Genetics* **20**:e1011186. doi:[10.1371/journal.pgen.1011186](https://doi.org/10.1371/journal.pgen.1011186)
- Pourcel C, Essoh C, Ouldali M, Tavares P. 2024. Acinetobacter baumannii satellite phage Aci01-2-Phanie depends on a helper myophage for its multiplication. *J Virol* **98**:e0066724. doi:[10.1128/jvi.00667-24](https://doi.org/10.1128/jvi.00667-24)
- Prigent M, Jean-Jacques H, Naquin D, Chédin S, Cuif M-H, Legouis R, Kuras L. 2024. Sulfur starvation-induced autophagy in *Saccharomyces cerevisiae* involves SAM-dependent signaling and transcription activator Met4. *Nat Commun* **15**:6927. doi:[10.1038/s41467-024-51309-6](https://doi.org/10.1038/s41467-024-51309-6)
- Rivière F, Dian C, Dutheil RF, Monassa P, Giglione C, Meinel T. 2024. Novel, tightly structurally related N-myristoyltransferase inhibitors display equally potent yet distinct inhibitory mechanisms. *Structure* **32**:2126-2136. doi:[10.1016/j.str.2024.08.001](https://doi.org/10.1016/j.str.2024.08.001)
- Roginski P, Grandchamp A, Quignot C, Lopes A. 2024. De Novo Emerged Gene Search in Eukaryotes with DENSE. *Genome Biology and Evolution* **16**:evae159. doi:[10.1093/gbe/evae159](https://doi.org/10.1093/gbe/evae159)
- Ropert B, Bannwarth S, Genin EC, Vaillant-Beuchot L, Lacas-Gervais S, Hounoum BM, Bernardin A, Dinh N, Mauri-Crouzet A, D'Elia M-A, Augé G, Lespinasse F, Di Giorgio A, Meira W, Bonnefoy N, Monassier L, Schiff M, Sago L, Kilinc D, Brau F, Redeker V, Bohl D, Tribouillard-Tanvier D, Procaccio V, Azoulay S, Ricci J-E, Delahodde A, Paquis-Flucklinger V. 2024. Nifuroxazide rescues the deleterious effects due to CHCHD10-associated MICOS defects in disease models. *Brain* **147**:awae348. doi:[10.1093/brain/awae348](https://doi.org/10.1093/brain/awae348)
- Rossier O, Labarre C, Lopes A, Auberdic M, Tambosco K, Delaruelle D, Abes H, Arteni AA, Ouldali M, Pieri L, Afgoun R, Anacleto L, Beaure N, Baghdad M, Bellom N, Ben Hamou-Kuijpers E, Boukamel A, Carron J, Carta V, Castelneau L, Chadailac Z, Chaouat E, Desmat S, Favel K, Gabillot E, Gargar M, Gautheret M, Gilles E, Lager C, Le Deit A, Le vay Y, Lemercier L, Litvinov A, Moussi S, Prevot M, Rehala M, Rodrigues C, Sambe R, Srimoorthy A, Tillay TM, Verhoeven C, Vittaz P, Wu J, Regeard C. 2024. Genome sequence of PSONYX, a singleton bacteriophage infecting *Corynebacterium glutamicum*. *Microbiology Resource Announcements* **13**:e01155-23. doi:[10.1128/mra.01155-23](https://doi.org/10.1128/mra.01155-23)
- Royet A, Ruedas R, Gargowitsch L, Gervais V, Habersetzer J, Pieri L, Ouldali M, Paternostre M, Hofmann I, Tubiana T, Fieulaine S, Bressanelli S. 2024. Nonstructural protein 4 of human norovirus self-assembles into various membrane-bridging multimers. *J Biol Chem* **300**:107724. doi:[10.1016/j.jbc.2024.107724](https://doi.org/10.1016/j.jbc.2024.107724)
- Ruedas R, Vuillemot R, Tubiana T, Winter J-M, Pieri L, Arteni A-A, Samson C, Jonic S, Mathieu M, Bressanelli S. 2024. Structure and conformational variability of the HER2-trastuzumab-pertuzumab complex. *Journal of Structural Biology* **216**:108095. doi:[10.1016/j.jsb.2024.108095](https://doi.org/10.1016/j.jsb.2024.108095)
- Sheth S, Gotico P, Herrero C, Quaranta A, Aukauloo A, Leibl W. 2024. Proton Domino Reactions at an Imidazole Relay Control the Oxidation of a TyrZ-His190 Artificial Mimic of Photosystem II. *Chemistry – A European Journal* **30**:e202400862. doi:[10.1002/chem.202400862](https://doi.org/10.1002/chem.202400862)
- Shimakawa G, Müller P, Miyake C, Krieger-Liszka A, Sétif P. 2024. Photo-oxidative damage of photosystem I by repetitive flashes and chilling stress in cucumber leaves. *Biochim Biophys Acta Bioenerg* **1865**:149490. doi:[10.1016/j.bbabi.2024.149490](https://doi.org/10.1016/j.bbabi.2024.149490)
- Streikaite S, Iliaia C, Chaussavoine I, Chmeliov J, Gelzinis A, Frolov D, Valkunas L, Rimsky S, Gall A, Robert B. 2024. Functional organization of 3D plant thylakoid membranes as seen by high resolution microscopy. *Biochimica et Biophysica Acta (BBA) - Bioenergetics* **1865**:149493. doi:[10.1016/j.bbabi.2024.149493](https://doi.org/10.1016/j.bbabi.2024.149493)

- Vernhes E, Larbi Chérif L, Ducrot N, Vanbergue C, Ouldali M, Zig L, Sidibe N, Hoos S, Ramirez-Chamorro L, Renouard M, Rossier O, England P, Schoehn G, Boulanger P, Benihoud K. 2024. Antigen self-anchoring onto bacteriophage T5 capsid-like particles for vaccine design. *npj Vaccines* **9**:1–11. doi:[10.1038/s41541-023-00798-5](https://doi.org/10.1038/s41541-023-00798-5)
- Verstraeten S, Layec S, Auger S, Juste C, Henry C, Charif S, Jaszczyszyn Y, Sokol H, Beney L, Langella P, Thomas M, Huillet E. 2024. Faecalibacterium duncaniae A2-165 regulates the expression of butyrate synthesis, ferrous iron uptake, and stress-response genes based on acetate consumption. *Sci Rep* **14**:987. doi:[10.1038/s41598-023-51059-3](https://doi.org/10.1038/s41598-023-51059-3)
- Zanetti A, Dujardin G, Fares-Taie L, Amiel J, Roger JE, Audo I, Robert MP, David P, Jung V, Goudin N, Guerrero IC, Moriceau S, Amana D, Assia Batzir N, Bachar-Zipori A, Basel Salmon L, Boddaert N, Briault S, Bruel A-L, Costet-Fighiera C, Coutinho Santos L, Gitiaux C, Kaminska K, Kuentz P, Orenstein N, Philip-Sarles N, Plutino M, Quinodoz M, Santos C, Sigaudy S, Soeiro e Sá M, Sofrin E, Sousa AB, Sousa-Luis R, Thauvin-Robinet C, van Dijk EL, Zaafrane-Khachnaoui K, Zur D, Kaplan J, Rivolta C, Rozet J-M, Perrault I. 2024. GPATCH11 variants cause mis-splicing and early-onset retinal dystrophy with neurological impairment. *Nat Commun* **15**:10096. doi:[10.1038/s41467-024-54549-8](https://doi.org/10.1038/s41467-024-54549-8)

2023

- Alvaro-Aranda L, Petitalot A, Djeghmoum Y, Panigada D, Singh JK, Ehlén Å, Vugic D, Martin C, Miron S, Contreras-Perez A, Nhiri N, Boucherit V, Lafitte P, Dumoulin I, Rouleau E, Jacquet E, Feliubadaló L, Del Valle J, Stoppa-Lyonnet D, Zinn-Justin S, Lázaro C, Caputo SM, Carreira A. 2023. The BRCA2 R2645G variant increases DNA binding and induces hyper-recombination. *Nucleic Acids Res* gkad1222. doi:[10.1093/nar/gkad1222](https://doi.org/10.1093/nar/gkad1222)
- Amanullah S, Gotico P, Sircoglou M, Leibl W, Llansola-Portoles MJ, Tibiletti T, Quaranta A, Halime Z, Aukauloo A. 2023. Second Coordination Sphere Effect Shifts CO₂ to CO Reduction by Iron Porphyrin from Fe⁰ to Fe^I. *Angew Chem Int Ed Engl* e202314439. doi:[10.1002/anie.202314439](https://doi.org/10.1002/anie.202314439)
- Bazin-Gélis M, Eleftheriou E, Zangarelli C, Lelandais G, Sperling L, Arnaiz O, Bétermier M. 2023. Inter-generational nuclear crosstalk links the control of gene expression to programmed genome rearrangement during the Paramecium sexual cycle. *Nucleic Acids Res* gkad1006. doi:[10.1093/nar/gkad1006](https://doi.org/10.1093/nar/gkad1006)
- Bělíčková J, Ľuptáková E, Kopečný D, Frömmel J, Vigouroux A, Čavar Zeljković S, Jagić F, Briozzo P, Kopečný DJ, Tarkowski P, Nisler J, De Diego N, Moréra S, Kopečná M. 2023. Biochemical and structural basis of polyamine, lysine and ornithine acetylation catalyzed by spermine/spermidine N-acetyl transferase in moss and maize. *Plant J*. doi:[10.1111/tpj.16148](https://doi.org/10.1111/tpj.16148)
- Bonaud A, Larraufie P, Khamyath M, Szachnowski U, Flint SM, Brunel-Meunier N, Delhommeau F, Munier A, Lönnberg T, Toffano-Nioche C, Gautheret D, Balabanian K, Espéli M. 2023. Transinteractome analysis reveals distinct niche requirements for isotype-based plasma cell subsets in the bone marrow. *Eur J Immunol* e2250334. doi:[10.1002/eji.202250334](https://doi.org/10.1002/eji.202250334)
- Boussac A, Sugiura M, Nakamura M, Nagao R, Noguchi T, Viola S, Rutherford AW, Sellés J. 2023. Absorption changes in Photosystem II in the Soret band region upon the formation of the chlorophyll cation radical [PD1PD2]. *Photosynth Res*. doi:[10.1007/s11120-023-01049-3](https://doi.org/10.1007/s11120-023-01049-3)
- Brisson O, Gnan S, Azar D, Koundrioukoff S, Melendez-Garcia R, Kim S-J, Schmidt M, El-Hilali S, Jaszczyszyn Y, Lachages A-M, Thermes C, Chen C-L, Debatisse M. 2023. Mistimed origin licensing and activation stabilize common fragile sites under tight DNA-replication checkpoint activation. *Nat Struct Mol Biol*. doi:[10.1038/s41594-023-00949-1](https://doi.org/10.1038/s41594-023-00949-1)

- Cargemel C, Baconnais S, Aumont-Nicaise M, Noiray M, Maurin L, Andreani J, Walbott H, Le Cam E, Ochsenbein F, Marsin S, Quevillon-Cheruel S. 2023a. Structural Insights of the DciA Helicase Loader in Its Relationship with DNA. *Int J Mol Sci* **24**:1427. doi:[10.3390/ijms24021427](https://doi.org/10.3390/ijms24021427)
- Cargemel C, Marsin S, Noiray M, Legrand P, Bounoua H, Li de la Sierra-Gallay I, Walbott H, Quevillon-Cheruel S. 2023b. The LH-DH module of bacterial replicative helicases is the common binding site for DciA and other helicase loaders. *Acta Crystallogr D Struct Biol* **79**:177–187. doi:[10.1107/S2059798323000281](https://doi.org/10.1107/S2059798323000281)
- Ceppi I, Cannavo E, Bret H, Camarillo R, Vivalda F, Thakur RS, Romero-Franco A, Sartori AA, Huertas P, Guérois R, Cejka P. 2023. PLK1 regulates CtIP and DNA2 interplay in long-range DNA end resection. *Genes Dev*. doi:[10.1101/gad.349981.122](https://doi.org/10.1101/gad.349981.122)
- Charvin M, Halter T, Blanc-Mathieu R, Barraud P, Aumont-Nicaise M, Parcy F, Navarro L. 2023. Single-cytosine methylation at W-boxes repels binding of WRKY transcription factors through steric hindrance. *Plant Physiol* kiad069. doi:[10.1093/plphys/kiad069](https://doi.org/10.1093/plphys/kiad069)
- Daugeron M-C, Missouri S, Da Cunha V, Lazar N, Collinet B, van Tilbeurgh H, Basta T. 2023. A paralog of Pcc1 is the fifth core subunit of the KEOPS tRNA-modifying complex in Archaea. *Nat Commun* **14**:526. doi:[10.1038/s41467-023-36210-y](https://doi.org/10.1038/s41467-023-36210-y)
- E L, A V, R K, M K, D Z, O N, S SS, S ĆZ, Dj K, K von S, M S, L S, N DD, D K, S M. 2023. Plant nucleoside N-ribohydrolases: riboside binding and role in nitrogen storage mobilization. *The Plant journal : for cell and molecular biology*. doi:[10.1111/tpj.16572](https://doi.org/10.1111/tpj.16572)
- Fieulaine S, Tubiana T, Bressanelli S. 2023. Hepatitis E virus RNA replication polyprotein: taking structural biology seriously. *Front Microbiol* **14**:1254741. doi:[10.3389/fmicb.2023.1254741](https://doi.org/10.3389/fmicb.2023.1254741)
- Gelot C, Kovacs MT, Miron S, Mylne E, Haan A, Boeffard-Dosierre L, Ghouil R, Popova T, Dingli F, Loew D, Guirouilh-Barbat J, Del Nery E, Zinn-Justin S, Ceccaldi R. 2023. Polθ is phosphorylated by PLK1 to repair double-strand breaks in mitosis. *Nature*. doi:[10.1038/s41586-023-06506-6](https://doi.org/10.1038/s41586-023-06506-6)
- Ghouil R, Miron S, Sato K, Ristic D, van Rossum-Fikkert SE, Legrand P, Ouldali M, Winter J-M, Ropars V, David G, Arteni A-A, Wyman C, Knipscheer P, Kanaar R, Zelensky AN, Zinn-Justin S. 2023. BRCA2-HSF2BP oligomeric ring disassembly by BRME1 promotes homologous recombination. *Sci Adv* **9**:ead7352. doi:[10.1126/sciadv.adi7352](https://doi.org/10.1126/sciadv.adi7352)
- Glorion M, Pascale F, Huriet M, Estephan J, Gouin C, Urien C, Bourge M, Egidy G, Richard C, Gelin V, De Wolf J, Le Guen M, Magnan A, Roux A, Devillier P, Schwartz-Cornil I, Sage E. 2023. Differential early response of monocyte/macrophage subsets to intra-operative corticosteroid administration in lung transplantation. *Front Immunol* **14**:1281546. doi:[10.3389/fimmu.2023.1281546](https://doi.org/10.3389/fimmu.2023.1281546)
- Gomes M, Fleck A, Degaugue A, Gourmelon F, Léger C, Aumont-Nicaise M, Mesneau A, Jean-Jacques H, Hassaine G, Urvoas A, Minard P, Valerio-Lepiniec M. 2023. Design of an artificial phage-display library based on a new scaffold improved for average stability of the randomized proteins. *Sci Rep* **13**:1339. doi:[10.1038/s41598-023-27710-4](https://doi.org/10.1038/s41598-023-27710-4)
- Horváth B, Güngör B, Tóth M, Domonkos Á, Ayaydin F, Saifi F, Chen Y, Biró JB, Bourge M, Szabó Z, Tóth Z, Chen R, Kaló P. 2023. The Medicago truncatula nodule-specific cysteine-rich peptides, NCR343 and NCR-new35 are required for the maintenance of rhizobia in nitrogen-fixing nodules. *New Phytol*. doi:[10.1111/nph.19097](https://doi.org/10.1111/nph.19097)
- Houngue R, Sangaré LO, Alayi TD, Dieng A, Bitard-Feildel T, Boulogne C, Slomianny C, Atindehou CM, Fanou LA, Hathout Y, Callebaut I, Tomavo S. 2023. Toxoplasma membrane inositol phospholipid

- binding protein TgREMIND is essential for secretory organelle function and host infection. *Cell Rep* **43**:113601. doi:[10.1016/j.celrep.2023.113601](https://doi.org/10.1016/j.celrep.2023.113601)
- Hussain S, Ur Rehman M, Arif A, Cailleau C, Gillet C, Saleem R, Noor H, Naqvi F, Jabeen A, Atta-Ur-Rahman null, Iqbal Choudhary M, Fattal E, Tsapis N. 2023. Diclofenac prodrugs nanoparticles: an alternative and efficient treatment for rheumatoid arthritis? *Int J Pharm* 123227. doi:[10.1016/j.ijpharm.2023.123227](https://doi.org/10.1016/j.ijpharm.2023.123227)
- Kefala Stavridi A, Gontier A, Morin V, Frit P, Ropars V, Barboule N, Racca C, Jonchhe S, Morten MJ, Andreani J, Rak A, Legrand P, Bourand-Plantefol A, Hardwick SW, Chirgadze DY, Davey P, De Oliveira TM, Rothenberg E, Britton S, Calsou P, Blundell TL, Varela PF, Chaplin AK, Charbonnier J-B. 2023. Structural and functional basis of inositol hexaphosphate stimulation of NHEJ through stabilization of Ku-XLF interaction. *Nucleic Acids Res* gkad863. doi:[10.1093/nar/gkad863](https://doi.org/10.1093/nar/gkad863)
- Leccese S, Calcinoni A, Wilson A, Kirilovsky D, Carbonera D, Onfroy T, Jolivald C, Mezzetti A. 2023. Orange Carotenoid Protein in Mesoporous Silica: A New System towards the Development of Colorimetric and Fluorescent Sensors for pH and Temperature. *Micromachines (Basel)* **14**:1871. doi:[10.3390/mi14101871](https://doi.org/10.3390/mi14101871)
- Lejeune C, Cornu D, Sago L, Redeker V, Virolle M-J. 2023. The stringent response is strongly activated in the antibiotic producing strain, *Streptomyces coelicolor*. *Res Microbiol* 104177. doi:[10.1016/j.resmic.2023.104177](https://doi.org/10.1016/j.resmic.2023.104177)
- Liu S, Miné-Hattab J, Villemeur M, Guerois R, Pinholt HD, Mirny LA, Taddei A. 2023. Author Correction: In vivo tracking of functionally tagged Rad51 unveils a robust strategy of homology search. *Nat Struct Mol Biol*. doi:[10.1038/s41594-023-01180-8](https://doi.org/10.1038/s41594-023-01180-8)
- Messant M, Hani U, Hennebelle T, Guérard F, Gakière B, Gall A, Thomine S, Krieger-Liszkay A. 2023. Manganese concentration affects chloroplast structure and the photosynthetic apparatus in *Marchantia polymorpha*. *Plant Physiol* kiad052. doi:[10.1093/plphys/kiad052](https://doi.org/10.1093/plphys/kiad052)
- Mezzetti A, Paul J-F, Leibl W. 2023. Identification of a Ubiquinone-Ubiquinol Quinhydrone Complex in Bacterial Photosynthetic Membranes and Isolated Reaction Centers by Time-Resolved Infrared Spectroscopy. *Int J Mol Sci* **24**:5233. doi:[10.3390/ijms24065233](https://doi.org/10.3390/ijms24065233)
- Monteiro-Cardoso VF, Le Bars R, Giordano F. 2023. Visualization and Quantification of Endogenous Intra-Organellar Protein Interactions at ER-Mitochondria Contact Sites by Proximity Ligation Assays. *J Vis Exp*. doi:[10.3791/64750](https://doi.org/10.3791/64750)
- Moreira Da Silva C, Vallet M, Semion C, Blin T, Saint-Martin R, Leroy J, Dragoé D, Brisset F, Gillet C, Guillot R, Huc V. 2023. A simple and efficient process for the synthesis of 2D carbon nitrides and related materials. *Sci Rep* **13**:15423. doi:[10.1038/s41598-023-39899-5](https://doi.org/10.1038/s41598-023-39899-5)
- Moréra S, Vigouroux A, Aumont-Nicaise M, Ahmar M, Meyer T, El Sahili A, Deicsics G, González-Mula A, Li S, Doré J, Siragu S, Legrand P, Penot C, André F, Faure D, Soulère L, Queneau Y, Vial L. 2023. A highly conserved ligand-binding site for AccA transporters of antibiotic and quorum-sensing regulator in *Agrobacterium* leads to a different specificity. *Biochem J* BCJ20230273. doi:[10.1042/BCJ20230273](https://doi.org/10.1042/BCJ20230273)
- Oliveira L, Chevrollier N, Dallery J-F, O'Connell RJ, Lebrun M-H, Viaud M, Lespinet O. 2023. CusProSe: a customizable protein annotation software with an application to the prediction of fungal secondary metabolism genes. *Sci Rep* **13**:1417. doi:[10.1038/s41598-023-27813-y](https://doi.org/10.1038/s41598-023-27813-y)
- Pourcel C, Ouldali M, Tavares P, Essoh C. 2023. The saclayvirus Aci01-1 very long and complex fiber and its receptor at the *Acinetobacter baumannii* surface. *Arch Virol* **168**:187. doi:[10.1007/s00705-023-05817-3](https://doi.org/10.1007/s00705-023-05817-3)

- Renouard E, Nowinska M, Lacomat F, Plaza P, Müller P, Espagne A. 2023. Multiscale Transient Absorption Study of the Fluorescent Protein Dreiklang and Two Point Variants Provides Insight into Photoswitching and Nonproductive Reaction Pathways. *J Phys Chem Lett* 6477–6485. doi:[10.1021/acs.jpcllett.3c00431](https://doi.org/10.1021/acs.jpcllett.3c00431)
- Schweke H, Xu Q, Tauriello G, Pantolini L, Schwede T, Cazals F, Lhéritier A, Fernandez-Recio J, Rodríguez-Lumbreras LA, Schueler-Furman O, Varga JK, Jiménez-García B, Réau MF, Bonvin AMJJ, Savojardo C, Martelli P-L, Casadio R, Tubiana J, Wolfson HJ, Oliva R, Barradas-Bautista D, Ricciardelli T, Cavallo L, Venclovas Č, Olechnovič K, Guerois R, Andreani J, Martin J, Wang X, Terashi G, Sarkar D, Christoffer C, Aderinwale T, Verburgt J, Kihara D, Marchand A, Correia BE, Duan R, Qiu L, Xu X, Zhang S, Zou X, Dey S, Dunbrack RL, Levy ED, Wodak SJ. 2023. Discriminating physiological from non-physiological interfaces in structures of protein complexes: A community-wide study. *Proteomics* e2200323. doi:[10.1002/pmic.202200323](https://doi.org/10.1002/pmic.202200323)
- Shenoy J, Lends A, Berbon M, Bilal M, El Mammeri N, Bertoni M, Saad A, Morvan E, Grélard A, Lecomte S, Theillet F-X, Buell AK, Kauffmann B, Habenstein B, Loquet A. 2023. Structural polymorphism of the low-complexity C-terminal domain of TDP-43 amyloid aggregates revealed by solid-state NMR. *Front Mol Biosci* 10:1148302. doi:[10.3389/fmolb.2023.1148302](https://doi.org/10.3389/fmolb.2023.1148302)
- Shevtsov A, Cloeckert A, Berdimuratova K, Shevtsova E, Shustov AV, Amirgazin A, Karibayev T, Kamalova D, Zygmunt MS, Ramanculov Y, Vergnaud G. 2023. Brucella abortus in Kazakhstan, population structure and comparison with worldwide genetic diversity. *Front Microbiol* 14:1106994. doi:[10.3389/fmicb.2023.1106994](https://doi.org/10.3389/fmicb.2023.1106994)
- Singh DK, Gamboa RS, Singh AK, Walkemeier B, Van Leene J, De Jaeger G, Siddiqi I, Guerois R, Crismani W, Mercier R. 2023. The FANCC-FANCE-FANCF complex is evolutionarily conserved and regulates meiotic recombination. *Nucleic Acids Res* gkac1244. doi:[10.1093/nar/gkac1244](https://doi.org/10.1093/nar/gkac1244)
- Tabares LC, Daniel DT, Vázquez-Ibar JL, Kouklovsky C, Alezra V, Un S. 2023. Using the Noncanonical Metallo-Amino Acid [Cu(II)(2,2'-Bipyridin-5-yl)]-alanine to Study the Structures of Proteins. *J Phys Chem Lett* 3368–3375. doi:[10.1021/acs.jpcllett.3c00196](https://doi.org/10.1021/acs.jpcllett.3c00196)
- Teixeira-Nunes M, Retailleau P, Raoux-Barbot D, Comisso M, Missinou AA, Velours C, Plancqueel S, Ladant D, Mechold U, Renault L. 2023. Functional and structural insights into the multi-step activation and catalytic mechanism of bacterial ExoY nucleotidyl cyclase toxins bound to actin-profilin. *PLoS Pathog* 19:e1011654. doi:[10.1371/journal.ppat.1011654](https://doi.org/10.1371/journal.ppat.1011654)
- Travin DY, Jouan R, Vigouroux A, Inaba-Inoue S, Lachat J, Haq F, Timchenko T, Sutormin D, Dubiley S, Beis K, Moréra S, Severinov K, Mergaert P. 2023. Dual-Uptake Mode of the Antibiotic Phazolicin Prevents Resistance Acquisition by Gram-Negative Bacteria. *mBio* e0021723. doi:[10.1128/mbio.00217-23](https://doi.org/10.1128/mbio.00217-23)
- van Dijk EL, Naquin D, Gorrichon K, Jaszczyszyn Y, Ouazahrou R, Thermes C, Hernandez C. 2023. Genomics in the long-read sequencing era. *Trends Genet* S0168-9525(23)00119–1. doi:[10.1016/j.tig.2023.04.006](https://doi.org/10.1016/j.tig.2023.04.006)
- Wang Y, Chiappetta G, Guérois R, Liu Y, Romero S, Boesch DJ, Krause M, Dessalles CA, Babataheri A, Barakat AI, Chen B, Vinh J, Polesskaya A, Gautreau AM. 2023. PPP2R1A regulates migration persistence through the NHL1-containing WAVE Shell Complex. *Nat Commun* 14:3541. doi:[10.1038/s41467-023-39276-w](https://doi.org/10.1038/s41467-023-39276-w)
- Wu X, Liu Y, d'Aubenton-Carafa Y, Thermes C, Hyrien O, Chen C-L, Petryk N. 2023. Genome-wide measurement of DNA replication fork directionality and quantification of DNA replication initiation and termination with Okazaki fragment sequencing. *Nat Protoc*. doi:[10.1038/s41596-022-00793-5](https://doi.org/10.1038/s41596-022-00793-5)

Zecchin P, Pecqueur L, Oltmanns J, Velours C, Schünemann V, Fontecave M, Golinelli-Pimpaneau B. 2023. Structure-based insights into the mechanism of [4Fe-4S]-dependent sulfur insertase LarE. *Protein Sci* e4874. doi:[10.1002/pro.4874](https://doi.org/10.1002/pro.4874)

2022

Adam, Yazid, Pierre Brezellec, Elena Espinosa, Amelie Besombes, Delphine Naquin, Evelyne Paly, Christophe Possoz, Erwin van Dijk, Barre Francois-Xavier, and Ferat Jean-Luc. 2022. "Plesiomonas Shigelloides, an Atypical Enterobacteriales with a Vibrio-Related Secondary Chromosome." *Genome Biology and Evolution*, January, evac011. <https://doi.org/10.1093/gbe/evac011>.

Velours, Christophe, Jingjing Zhou, Paolo Zecchin, Nisha He, Myriam Salameh, Marie-Pierre Golinelli-Cohen, and Béatrice Golinelli-Pimpaneau. 2022. "Determination of the Absolute Molar Mass of [Fe-S]-Containing Proteins Using Size Exclusion Chromatography-Multi-Angle Light Scattering (SEC-MALS)." *Biomolecules* 12 (2): 270. <https://doi.org/10.3390/biom12020270>.

Guercio, Angelica M., Salar Torabi, David Cornu, Marion Dalmais, Abdelhafid Bendahmane, Christine Le Signor, Jean-Paul Pillot, et al. 2022. "Structural and Functional Analyses Explain Pea KAI2 Receptor Diversity and Reveal Stereoselective Catalysis during Signal Perception." *Communications Biology* 5 (1): 1–16. <https://doi.org/10.1038/s42003-022-03085-6>.

Lejeune, Clara, Laila Sago, David Cornu, Virginie Redeker, and Marie-Joelle Virolle. 2022. "A Proteomic Analysis Indicates That Oxidative Stress Is the Common Feature Triggering Antibiotic Production in Streptomyces Coelicolor and in the PptA Mutant of Streptomyces Lividans." *Frontiers in Microbiology* 12 (March). <https://www.frontiersin.org/article/10.3389/fmicb.2021.813993>.

Damke, Prashant P., Louisa Celma, Sumedha M. Kondekar, Anne Marie Di Guilmi, Stéphanie Marsin, Jordane Dépagne, Xavier Veaute, et al. 2022. "ComFC Mediates Transport and Handling of Single-Stranded DNA during Natural Transformation." *Nature Communications* 13 (1): 1961. <https://doi.org/10.1038/s41467-022-29494-z>.

Kissling, Vera M., Giordano Reginato, Eliana Bianco, Kristina Kasaciunaite, Janny Tilma, Gea Cereghetti, Natalie Schindler, et al. 2022. "Mre11-Rad50 Oligomerization Promotes DNA Double-Strand Break Repair." *Nature Communications* 13 (1): 2374. <https://doi.org/10.1038/s41467-022-29841-0>.

Piet, Quentin, Gaetan Droc, William Marande, Gautier Sarah, Stéphanie Bocs, Christophe Klopp, Mickael Bourge, et al. 2022. "A Chromosome-Level, Haplotype-Phased Vanilla Planifolia Genome Highlights the Challenge of Partial Endoreplication for Accurate Whole-Genome Assembly." *Plant Communications*, May, 100330. <https://doi.org/10.1016/j.xplc.2022.100330>.

Campanacci, Valérie, Agathe Urvoas, Liza Ammar Khodja, Magali Aumont-Nicaise, Magali Noiray, Sylvie Lachkar, Patrick A. Curmi, Philippe Minard, and Benoît Gigant. 2022. "Structural Convergence for Tubulin Binding of CPAP and Vinca Domain Microtubule Inhibitors." *Proceedings of the National Academy of Sciences* 119 (19): e2120098119. <https://doi.org/10.1073/pnas.2120098119>.

Soisig Steunou, Anne, Armelle Vigouroux, Magali Aumont-Nicaise, Stéphane Planqueel, Alain Boussac, Soufian Ouchane, and Solange Moréra. 2022. "New Insights into the Mechanism of Iron Transport through the Bacterial Ftr-System Present in Pathogens." *The FEBS Journal* n/a (n/a). <https://doi.org/10.1111/febs.16476>.

Cargemel, Claire, Hélène Walbott, Dominique Durand, Pierre Legrand, Malika Ouldali, Jean-Luc Ferat, Stéphanie Marsin, and Sophie Quevillon-Cheruel. 2022. "The Apo-Form of the Vibrio Cholerae

- Replicative Helicase DnaB Is a Labile and Inactive Planar Trimer of Dimers." *FEBS Letters* n/a (n/a). <https://doi.org/10.1002/1873-3468.14403>.
- Minić, Simeon, Burkhard Annighöfer, Arnaud Hélary, Laïla Sago, David Cornu, Annie Brûlet, and Sophie Combet. 2022. "Structure of Proteins under Pressure: Covalent Binding Effects of Biliverdin on β -Lactoglobulin." *Biophysical Journal* 0 (0). <https://doi.org/10.1016/j.bpj.2022.06.003>.
- Derisoud, Emilie, Luc Jouneau, Cédric Dubois, Catherine Archilla, Yan Jaszczyszyn, Rachel Legendre, Nathalie Daniel, et al. 2022. "Maternal Age Affects Equine Day 8 Embryo Gene Expression Both in Trophoblast and Inner Cell Mass." *BMC Genomics* 23 (1): 443. <https://doi.org/10.1186/s12864-022-08593-7>.
- Banerjee, Payel, Paul Joly, Luc Jouneau, Yan Jaszczyszyn, Mickaël Bourge, Pierre Affaticati, Jean-Pierre Levraud, Pierre Boudinot, and Jean-Stéphane Joly. 2022. "Molecular and Cellular Analysis of the Repair of Zebrafish Optic Tectum Meninges Following Laser Injury." *Cells* 11 (13): 2016. <https://doi.org/10.3390/cells11132016>.
- Bouchereau, Wilhelm, Luc Jouneau, Catherine Archilla, Irène Aksoy, Anais Moulin, Nathalie Daniel, Nathalie Peynot, et al. 2022. "Major Transcriptomic, Epigenetic and Metabolic Changes Underly the Pluripotency Continuum in Rabbit Preimplantation Embryos." *Development*, August, dev.200538. <https://doi.org/10.1242/dev.200538>.
- Thébault, Stéphanie, Nathalie Lejal, Alexis Dogliani, Amélie Donchet, Agathe Urvoas, Marie Valerio-Lepiniec, Muriel Lavie, et al. 2022. "Biosynthetic Proteins Targeting the SARS-CoV-2 Spike as Anti-Virals." *PLOS Pathogens* 18 (9): e1010799. <https://doi.org/10.1371/journal.ppat.1010799>.
- Borgne, Pierrick Le, Logan Greibill, Marine Hélène Laporte, Michel Lemullois, Khaled Bouhouche, Mebarek Temagoult, Olivier Rosnet, et al. 2022. "The Evolutionary Conserved Proteins CEP90, FOPNL, and OFD1 Recruit Centriolar Distal Appendage Proteins to Initiate Their Assembly." *PLOS Biology* 20 (9): e3001782. <https://doi.org/10.1371/journal.pbio.3001782>.
- Monteiro-Cardoso, Vera F., Leila Rochin, Amita Arora, Audrey Houcine, Eeva Jääskeläinen, Annukka M. Kivelä, Cécile Sauvanet, et al. 2022. "ORP5/8 and MIB/MICOS Link ER-Mitochondria and Intra-Mitochondrial Contacts for Non-Vesicular Transport of Phosphatidylserine." *Cell Reports* 40 (12). <https://doi.org/10.1016/j.celrep.2022.111364>.
- Bousset, Luc, Ania Alik, Ana Arteni, Anja Böckmann, Beat H. Meier, and Ronald Melki. 2022. "α-Synuclein Fibril, Ribbon and Fibril-91 Amyloid Polymorphs Generation for Structural Studies." In *Protein Aggregation: Methods and Protocols*, edited by Andrzej Stanisław Cieplak, 345–55. Methods in Molecular Biology. New York, NY: Springer US. https://doi.org/10.1007/978-1-0716-2597-2_23.
- Hernandez, Céline, Gabriele Cancila, Olivier Ayrault, Andrei Zinovyev, and Loredana Martignetti. 2022. "ClustMMRA v2: A Scalable Computational Pipeline for the Identification of MicroRNA Clusters Acting Cooperatively on Tumor Molecular Subgroups." In *Systems Biology of MicroRNAs in Cancer*, edited by Ulf Schmitz, Olaf Wolkenhauer, and Julio Vera-González, 259–79. Advances in Experimental Medicine and Biology. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-08356-3_10.
- Zangarelli, Coralie, Olivier Arnaiz, Mickael Bourge, Kevin Gorrichon, Yan Jaszczyszyn, Nathalie Mathy, Loic Escoriza, Mireille Betermier, and Vinciane Regnier. 2022. "Developmental Timing of Programmed DNA Elimination in Paramecium Tetraurelia Recapitulates Germline Transposon Evolutionary Dynamics." *Genome Research*, November, gr.277027.122. <https://doi.org/10.1101/gr.277027.122>.
- Via y Rada, Romina, Nathalie Daniel, Catherine Archilla, Anne Frambourg, Luc Jouneau, Yan Jaszczyszyn, Gilles Charpigny, Véronique Duranthon, and Sophie Calderari. 2022. "Identification of the Inner Cell Mass and the Trophectoderm Responses after an In Vitro Exposure to Glucose and Insulin during the

Preimplantation Period in the Rabbit Embryo." *Cells* 11 (23): 3766. <https://doi.org/10.3390/cells11233766>.

Marion-Poll, Lucile, Jean-Pierre Roussarie, Lieng Taing, Cloelia Dard-Dascot, Nicolas Servant, Yan Jaszczyszyn, Emmanuelle Jordi, et al. 2022. "DNA Methylation and Hydroxymethylation Characterize the Identity of D1 and D2 Striatal Projection Neurons." *Communications Biology* 5 (1): 1–16. <https://doi.org/10.1038/s42003-022-04269-w>.

Carceller-Zazo, Elena, Lisa M. Sevilla, Omar Pons-Alonso, Álvaro Chiner-Oms, Larbi Amazit, Thi An Vu, Géraldine Vitellius, et al. 2022. "The Mineralocorticoid Receptor Modulates Timing and Location of Genomic Binding by Glucocorticoid Receptor in Response to Synthetic Glucocorticoids in Keratinocytes." *The FASEB Journal* 37 (1): e22709. <https://doi.org/10.1096/fj.202201199RR>.

Bentaleb, Cyrine, Kévin Hervouet, Claire Montpellier, Charline Camuzet, Martin Ferrié, Julien Burlaud-Gaillard, Stéphane Bressanelli, et al. 2022. "The Endocytic Recycling Compartment Serves as a Viral Factory for Hepatitis E Virus." *Cellular and Molecular Life Sciences* 79 (12): 615. <https://doi.org/10.1007/s00018-022-04646-y>.

Nevers, Quentin, Nathalie Scrima, Damien Glon, Romain Le Bars, Alice Decombe, Nathalie Garnier, Malika Ouldali, et al. 2022. "Properties of Rabies Virus Phosphoprotein and Nucleoprotein Biocondensates Formed in Vitro and in Cellulo." *PLOS Pathogens* 18 (12): e1011022. <https://doi.org/10.1371/journal.ppat.1011022>.

Jaudoin, Céline, Isabelle Grillo, Fabrice Cousin, Maria Gehrke, Malika Ouldali, Ana-Andreea Arteni, Luc Picton, et al. 2022. "Hybrid Systems Combining Liposomes and Entangled Hyaluronic Acid Chains: Influence of Liposome Surface and Drug Encapsulation on the Microstructure." *Journal of Colloid and Interface Science* 628 (December): 995–1007. <https://doi.org/10.1016/j.jcis.2022.07.146>.

Torres, Marta, Almudena Gonzalez-Mula, Delphine Naquin, and Denis Faure. 2022. "Construction of a Transposon Mutant Library in the Pathogen *Agrobacterium Tumefaciens* C58 and Identification of Genes Involved in Gall Niche Exploitation and Colonization." In *Microbial Environmental Genomics (MEG)*, edited by Francis Martin and Stephane Uroz, 209–26. Methods in Molecular Biology. New York, NY: Springer US. https://doi.org/10.1007/978-1-0716-2871-3_11.

He, Nisha, Jingjing Zhou, Ornella Bimai, Jonathan Oltmanns, Jean-Luc Ravanat, Christophe Velours, Volker Schünemann, Marc Fontecave, and Béatrice Golinelli-Pimpaneau. 2022. "A Subclass of Archaeal U8-TRNA Sulfurases Requires a [4Fe–4S] Cluster for Catalysis." *Nucleic Acids Research*, December, gkac1156. <https://doi.org/10.1093/nar/gkac1156>.

2021

Aydin, M.; Weisser, C.; Rué, O.; Mariadassou, M.; Maaß, S.; Behrendt, A.-K.; Jaszczyszyn, Y.; Heilker, T.; Spaeth, M.; Vogel, S.; Lutz, S.; Ahmad-Nejad, P.; Graf, V.; Bellm, A.; Weisser, C.; Naumova, E. A.; Arnold, W. H.; Ehrhardt, A.; Meyer-Bahlburg, A.; Becher, D.; Postberg, J.; Ghebremedhin, B.; Wirth, S. The Rhinobiome of Exacerbated Wheezers and Asthmatics: Insights From a German Pediatric Exacerbation Network. *Frontiers in Allergy* **2021**, 2.

Blin, M.; Lacroix, L.; Petryk, N.; Jaszczyszyn, Y.; Chen, C.-L.; Hyrien, O.; Le Tallec, B. DNA Molecular Combing-Based Replication Fork Directionality Profiling. *Nucleic Acids Research* **2021**, 49 (12), e69. <https://doi.org/10.1093/nar/gkab219>.

Bogunić, F.; Siljak-Yakovlev, S.; Mahmutović-Dizdarević, I.; Hajrudinović-Bogunić, A.; Bourge, M.; Brown, S. C.; Muratović, E. Genome Size, Cytotype Diversity and Reproductive Mode Variation of *Cotoneaster*

- Integerrimus (Rosaceae) from the Balkans. *Plants* **2021**, *10* (12), 2798. <https://doi.org/10.3390/plants10122798>.
- Bonetta, R.; Hunter, G. J.; Trinh, C. H.; Borowski, T.; Fenech, A. G.; Kulp, M.; Tabares, L. C.; Un, S.; Hunter, T. Substitution of Histidine 30 by Asparagine in Manganese Superoxide Dismutase Alters Biophysical Properties and Supports Proliferation in a K562 Leukemia Cell Line. *Eur Biophys J* **2021**, *50* (3), 571–585. <https://doi.org/10.1007/s00249-021-01544-2>.
- Boudry, P.; Piattelli, E.; Drouineau, E.; Peltier, J.; Boutserin, A.; Lejars, M.; Hajnsdorf, E.; Monot, M.; Dupuy, B.; Martin-Verstraete, I.; Gautheret, D.; Toffano-Nioche, C.; Soutourina, O. Identification of RNAs Bound by Hfq Reveals Widespread RNA Partners and a Sporulation Regulator in the Human Pathogen *Clostridioides Difficile*. *RNA Biol* **2021**, 1–22. <https://doi.org/10.1080/15476286.2021.1882180>.
- Busset, N.; Gully, D.; Teulet, A.; Fardoux, J.; Camuel, A.; Cornu, D.; Severac, D.; Giraud, E.; Mergaert, P. The Type III Effectome of the Symbiotic Bradyrhizobium Vignae Strain ORS3257. *Biomolecules* **2021**, *11* (11), 1592. <https://doi.org/10.3390/biom11111592>.
- Caroux, E.; Redeker, V.; Madiona, K.; Melki, R. Structural Mapping Techniques Distinguish the Surfaces of Fibrillar 1N3R and 1N4R Human Tau. *J Biol Chem* **2021**, *297* (5), 101252. <https://doi.org/10.1016/j.jbc.2021.101252>.
- Ciardo, D.; Haccard, O.; Narassimprakash, H.; Cornu, D.; Guerrera, I. C.; Goldar, A.; Marheineke, K. Polo-like Kinase 1 (Plk1) Regulates DNA Replication Origin Firing and Interacts with Rif1 in Xenopus. *Nucleic Acids Research* **2021**, *49* (17), 9851–9869. <https://doi.org/10.1093/nar/gkab756>.
- Dai, J.; Sanchez, A.; Adam, C.; Ranjha, L.; Reginato, G.; Chervy, P.; Tellier-Lebegue, C.; Andreani, J.; Guérois, R.; Ropars, V.; Le Du, M.-H.; Maloisel, L.; Martini, E.; Legrand, P.; Thureau, A.; Cejka, P.; Borde, V.; Charbonnier, J.-B. Molecular Basis of the Dual Role of the Mlh1-Mlh3 Endonuclease in MMR and in Meiotic Crossover Formation. *Proc Natl Acad Sci U S A* **2021**, *118* (23), e2022704118. <https://doi.org/10.1073/pnas.2022704118>.
- Derisoud, E.; Jouneau, L.; Margat, A.; Gourtay, C.; Dubois, C.; Archilla, C.; Jaszczyszyn, Y.; Dahirel, M.; Daniel, N.; Peynot, N.; Briot, L.; Geoffroy, F. D.; Wimel, L.; Duranthon, V.; Chavatte-Palmer, P.; Derisoud, E.; Jouneau, L.; Margat, A.; Gourtay, C.; Dubois, C.; Archilla, C.; Jaszczyszyn, Y.; Dahirel, M.; Daniel, N.; Peynot, N.; Briot, L.; Geoffroy, F. D.; Wimel, L.; Duranthon, V.; Chavatte-Palmer, P. 52 Equine Embryo Size Does Matter! *Reprod. Fertil. Dev.* **2021**, *34* (2), 261–261. <https://doi.org/10.1071/RDv34n2Ab52>.
- Etourneaud, L.; Moussa, A.; Rass, E.; Genet, D.; Willaume, S.; Chabance-Okumura, C.; Wanschoor, P.; Picotto, J.; Thézé, B.; Dépagne, J.; Veaute, X.; Dizet, E.; Busso, D.; Barascu, A.; Irbah, L.; Kortulewski, T.; Campalans, A.; Le Chalony, C.; Zinn-Justin, S.; Scully, R.; Pennarun, G.; Bertrand, P. Lamin B1 Sequesters 53BP1 to Control Its Recruitment to DNA Damage. *Sci Adv* **2021**, *7* (35), eabb3799. <https://doi.org/10.1126/sciadv.abb3799>.
- Farran, R.; Mekmouche, Y.; Vo, N. T.; Herrero, C.; Quaranta, A.; Sircoglou, M.; Banse, F.; Rousselot-Pailley, P.; Simaan, A. J.; Aukauloo, A.; Tron, T.; Leibl, W. Tracking Light-Induced Electron Transfer toward O₂ in a Hybrid Photoredox-Laccase System. *iScience* **2021**, *24* (4), 102378. <https://doi.org/10.1016/j.isci.2021.102378>.
- Follana-Berná, J.; Farran, R.; Leibl, W.; Quaranta, A.; Sastre-Santos, Á.; Aukauloo, A. Phthalocyanine as Bioinspired Model for Chlorophyll f Containing Photosystem II Pushing Photosynthesis in the Far-Red. *Angew Chem Int Ed Engl* **2021**. <https://doi.org/10.1002/anie.202101051>.
- Ghouil, R.; Miron, S.; Koornneef, L.; Veerman, J.; Paul, M. W.; Le Du, M.-H.; Sleddens-Linkels, E.; van Rossum-Fikkert, S. E.; van Loon, Y.; Felipe-Medina, N.; Pendas, A. M.; Maas, A.; Essers, J.; Legrand, P.;

- Baarends, W. M.; Kanaar, R.; Zinn-Justin, S.; Zelensky, A. N. BRCA2 Binding through a Cryptic Repeated Motif to HSF2BP Oligomers Does Not Impact Meiotic Recombination. *Nat Commun* **2021**, *12* (1), 4605. <https://doi.org/10.1038/s41467-021-24871-6>.
- Guérin, C.; Lee, B.-H.; Fradet, B.; van Dijk, E.; Mirauta, B.; Thermes, C.; Bernardet, J.-F.; Repoila, F.; Duchaud, E.; Nicolas, P.; Rochat, T. Transcriptome Architecture and Regulation at Environmental Transitions in Flavobacteria: The Case of an Important Fish Pathogen. *ISME COMMUN.* **2021**, *1* (1), 1–13. <https://doi.org/10.1038/s43705-021-00029-9>.
- Herbert, C. J.; Labarre-Mariotte, S.; Cornu, D.; Sophie, C.; Panozzo, C.; Michel, T.; Dujardin, G.; Bonnefoy, N. Translational Activators and Mitochondrial Isoforms Cooperate to Mediate mRNA-Specific Translation in *Schizosaccharomyces Pombe* Mitochondria. *Nucleic Acids Res* **2021**, gkab789. <https://doi.org/10.1093/nar/gkab789>.
- Ikkene, D.; Arteni, A. A.; Ouldali, M.; Francius, G.; Brûlet, A.; Six, J.-L.; Ferji, K. Direct Access to Polysaccharide-Based Vesicles with a Tunable Membrane Thickness in a Large Concentration Window via Polymerization-Induced Self-Assembly. *Biomacromolecules* **2021**, *22* (7), 3128–3137. <https://doi.org/10.1021/acs.biomac.1c00569>.
- Julien, M.; Ghouil, R.; Petitalot, A.; Caputo, S. M.; Carreira, A.; Zinn-Justin, S. Intrinsic Disorder and Phosphorylation in BRCA2 Facilitate Tight Regulation of Multiple Conserved Binding Events. *Biomolecules* **2021**, *11* (7), 1060. <https://doi.org/10.3390/biom11071060>.
- Kalvari, I.; Nawrocki, E. P.; Ontiveros-Palacios, N.; Argasinska, J.; Lamkiewicz, K.; Marz, M.; Griffiths-Jones, S.; Toffano-Nioche, C.; Gautheret, D.; Weinberg, Z.; Rivas, E.; Eddy, S. R.; Finn, R. D.; Bateman, A.; Petrov, A. I. Rfam 14: Expanded Coverage of Metagenomic, Viral and MicroRNA Families. *Nucleic Acids Research* **2021**, *49* (D1), D192–D200. <https://doi.org/10.1093/nar/gkaa1047>.
- Khadhraoui, A.; Gotico, P.; Leibl, W.; Halime, Z.; Aukauloo, A. Through-Space Electrostatic Interactions Surpass Classical Through-Bond Electronic Effects in Enhancing CO₂ Reduction Performance of Iron Porphyrins. *ChemSusChem* **2021**, *14* (5), 1308–1315. <https://doi.org/10.1002/cssc.202002718>.
- Kuksin, M.; Morel, D.; Aglave, M.; Danlos, F.-X.; Marabelle, A.; Zinovyev, A.; Gautheret, D.; Verlingue, L. Applications of Single-Cell and Bulk RNA Sequencing in Onco-Immunology. *Eur J Cancer* **2021**, *149*, 193–
- Labarre, C.; Dautin, N.; Grzegorzewicz, A.; Jackson, M.; McNeil, M.; Mohiman, N.; Sago, L.; Bayan, N. S16 and T18 Mannosylation Sites of LppX Are Not Essential for Its Activity in Phthiocerol Dimycocerosates Localization at the Surface of *Mycobacterium Tuberculosis*. *Res Microbiol* **2021**, 103874. <https://doi.org/10.1016/j.resmic.2021.103874>.
- Lacombat, F.; Espagne, A.; Dozova, N.; Plaza, P.; Müller, P.; Emmerich, H.-J.; Saft, M.; Essen, L.-O. Ultrafast Photoreduction Dynamics of a New Class of CPD Photolyases. *Photochem Photobiol Sci* **2021**, *20* (6), 733–746. <https://doi.org/10.1007/s43630-021-00048-4>.
- Li, F.; Liu, C.; Streckaite, S.; Yang, C.; Xu, P.; Llansola-Portoles, M. J.; Iliaia, C.; Pascal, A. A.; Croce, R.; Robert, B. A New, Unquenched Intermediate of LHCII. *J Biol Chem* **2021**, 100322. <https://doi.org/10.1016/j.jbc.2021.100322>.
- Lioy, V. S.; Lorenzi, J.-N.; Najah, S.; Poinsignon, T.; Leh, H.; Saulnier, C.; Aigle, B.; Lautru, S.; Thibessard, A.; Lespinet, O.; Leblond, P.; Jaszczyzyn, Y.; Gorrichon, K.; Varoquaux, N.; Junier, I.; Boccard, F.; Pernodet, J.-L.; Bury-Moné, S. Dynamics of the Compartmentalized *Streptomyces* Chromosome during Metabolic Differentiation. *Nat Commun* **2021**, *12* (1), 5221. <https://doi.org/10.1038/s41467-021-25462-1>.

- Ma, E.; Maloisel, L.; Le Falher, L.; Guérois, R.; Coïc, E. Rad52 Oligomeric N-Terminal Domain Stabilizes Rad51 Nucleoprotein Filaments and Contributes to Their Protection against Srs2. *Cells* **2021**, *10* (6). <https://doi.org/10.3390/cells10061467>.
- Marsin, S.; Adam, Y.; Cargemel, C.; Andreani, J.; Baconnais, S.; Legrand, P.; Li de la Sierra-Gallay, I.; Humbert, A.; Aumont-Nicaise, M.; Velours, C.; Ochsenbein, F.; Durand, D.; Le Cam, E.; Walbott, H.; Possoz, C.; Quevillon-Cheruel, S.; Ferat, J.-L. Study of the DnaB:DciA Interplay Reveals Insights into the Primary Mode of Loading of the Bacterial Replicative Helicase. *Nucleic Acids Res* **2021**, *49* (11), 6569–6586. <https://doi.org/10.1093/nar/gkab463>.
- Mbianda, J.; Bakail, M.; André, C.; Moal, G.; Perrin, M. E.; Pinna, G.; Guerois, R.; Becher, F.; Legrand, P.; Traoré, S.; Douat, C.; Guichard, G.; Ochsenbein, F. Optimal Anchoring of a Foldamer Inhibitor of ASF1 Histone Chaperone through Backbone Plasticity. *Sci Adv* **2021**, *7* (12), eabd9153. <https://doi.org/10.1126/sciadv.abd9153>.
- Montagné, N.; Jager, M.; Chertemps, T.; Persyn, E.; Jaszczyszyn, Y.; Meslin, C.; Jacquin-Joly, E.; Manuel, M. The Chemosensory Transcriptome of a Diving Beetle. *Frontiers in Ecology and Evolution* **2021**, *9*.
- Nguyen, H. T. N.; Xue, H.; Firlej, V.; Ponty, Y.; Gallopin, M.; Gautheret, D. Reference-Free Transcriptome Signatures for Prostate Cancer Prognosis. *BMC Cancer* **2021**, *21* (1), 394. <https://doi.org/10.1186/s12885-021-08021-1>.
- Ould Ali, M.; Moncoq, K.; de la Valette, A. de la C.; Arteni, A. A.; Betton, J.-M.; Lepault, J. Study of Membrane Deformations Induced by Hepatitis C Protein NS4B and Its Terminal Amphipathic Peptides. *Biochimica et Biophysica Acta (BBA) - Biomembranes* **2021**, *1863* (3), 183537. <https://doi.org/10.1016/j.bbamem.2020.183537>.
- Öz, R.; Wang, J. L.; Guerois, R.; Goyal, G.; Kk, S.; Ropars, V.; Sharma, R.; Koca, F.; Charbonnier, J.-B.; Modesti, M.; Strick, T. R.; Westerlund, F. Dynamics of Ku and Bacterial Non-Homologous End-Joining Characterized Using Single DNA Molecule Analysis. *Nucleic Acids Res* **2021**. <https://doi.org/10.1093/nar/gkab083>.
- Porro, A.; Mohiuddin, M.; Zurfluh, C.; Spegg, V.; Dai, J.; Iehl, F.; Ropars, V.; Collotta, G.; Fishwick, K. M.; Mozaffari, N. L.; Guérois, R.; Jiricny, J.; Altmeyer, M.; Charbonnier, J.-B.; Pearson, C. E.; Sartori, A. A. FAN1-MLH1 Interaction Affects Repair of DNA Interstrand Cross-Links and Slipped-CAG/CTG Repeats. *Sci Adv* **2021**, *7* (31), eabf7906. <https://doi.org/10.1126/sciadv.abf7906>.
- Postic, G.; Andreani, J.; Marcoux, J.; Reys, V.; Guerois, R.; Rey, J.; Mouton-Barbosa, E.; Vandenbrouck, Y.; Cianferani, S.; Burlet-Schiltz, O.; Labesse, G.; Tufféry, P. Proteo3Dnet: A Web Server for the Integration of Structural Information with Interactomics Data. *Nucleic Acids Res* **2021**, *49* (W1), W567–W572. <https://doi.org/10.1093/nar/gkab332>.
- Prudent, V.; Demarre, G.; Vazeille, E.; Wery, M.; Quenech'Du, N.; Ravet, A.; Dauverd-Girault, J.; van Dijk, E.; Bringer, M.-A.; Descrimes, M.; Barnich, N.; Rimsky, S.; Morillon, A.; Espéli, O. The Crohn's Disease-Related Bacterial Strain LF82 Assembles Biofilm-like Communities to Protect Itself from Phagolysosomal Attack. *Commun Biol* **2021**, *4* (1), 627. <https://doi.org/10.1038/s42003-021-02161-7>.
- Quaranta, A.; Krieger-Liszkay, A.; Pascal, A. A.; Perreau, F.; Robert, B.; Vengris, M.; Llansola-Portoles, M. J. Singlet Fission in Naturally-Organized Carotenoid Molecules. *Phys Chem Chem Phys* **2021**. <https://doi.org/10.1039/d0cp04493h>.
- Quignot, C.; Granger, P.; Chacón, P.; Guerois, R.; Andreani, J. Atomic-Level Evolutionary Information Improves Protein-Protein Interface Scoring. *Bioinformatics* **2021**, btab254. <https://doi.org/10.1093/bioinformatics/btab254>.

- Quignot, C.; Postic, G.; Bret, H.; Rey, J.; Granger, P.; Murail, S.; Chacón, P.; Andreani, J.; Tufféry, P.; Guerois, R. InterEvDock3: A Combined Template-Based and Free Docking Server with Increased Performance through Explicit Modeling of Complex Homologs and Integration of Covariation-Based Contact Maps. *Nucleic Acids Res* **2021**, *49* (W1), W277–W284. <https://doi.org/10.1093/nar/gkab358>.
- Ribeiro, J.; Dupaigne, P.; Petrillo, C.; Ducrot, C.; Duquenne, C.; Veaute, X.; Saintomé, C.; Busso, D.; Guerois, R.; Martini, E.; Livera, G. The Meiosis-Specific MEIOB-SPATA22 Complex Cooperates with RPA to Form a Compacted Mixed MEIOB/SPATA22/RPA/SsDNA Complex. *DNA Repair (Amst)* **2021**, *102*, 103097. <https://doi.org/10.1016/j.dnarep.2021.103097>.
- Riquier, S.; Bessiere, C.; Guibert, B.; Bouge, A.-L.; Boureux, A.; Ruffle, F.; Audoux, J.; Gilbert, N.; Xue, H.; Gautheret, D.; Commes, T. Kmerator Suite: Design of Specific k-Mer Signatures and Automatic Metadata Discovery in Large RNA-Seq Datasets. *NAR Genom Bioinform* **2021**, *3* (3), lqab058. <https://doi.org/10.1093/nargab/lqab058>.
- Saillant, V.; Lipuma, D.; Ostyn, E.; Joubert, L.; Boussac, A.; Guerin, H.; Brandelet, G.; Arnoux, P.; Lechardeur, D. A Novel Enterococcus Faecalis Heme Transport Regulator (FhtR) Senses Host Heme To Control Its Intracellular Homeostasis. *mBio* **2021**, *12* (1). <https://doi.org/10.1128/mBio.03392-20>.
- Scalvenzi, T.; Clavereau, I.; Bourge, M.; Pollet, N. Gut microbial ecology of *Xenopus* tadpoles across life stages. *Peer Community Journal* **2021**, *1*. <https://doi.org/10.24072/pcjournal.53>.
- Shikura, N.; Darbon, E.; Esnault, C.; Deniset-Besseau, A.; Xu, D.; Lejeune, C.; Jacquet, E.; Nhiri, N.; Sago, L.; Cornu, D.; Werten, S.; Martel, C.; Virolle, M.-J. The Phosin PptA Plays a Negative Role in the Regulation of Antibiotic Production in *Streptomyces Lividans*. *Antibiotics* **2021**, *10* (3), 325. <https://doi.org/10.3390/antibiotics10030325>.
- Streckaité, S.; Llansola-Portoles, M. J.; Pascal, A. A.; Illoaia, C.; Gall, A.; Seki, S.; Fujii, R.; Robert, B. Pigment Structure in the Light-Harvesting Protein of the Siphonous Green Alga *Codium Fragile*. *Biochim Biophys Acta Bioenerg* **2021**, *1862* (5), 148384. <https://doi.org/10.1016/j.bbabi.2021.148384>.
- Torres, M.; Jiquel, A.; Jeanne, E.; Naquin, D.; Dessaux, Y.; Faure, D. *Agrobacterium Tumefaciens* Fitness Genes Involved in the Colonization of Plant Tumors and Roots. *New Phytologist* **2021**, *233* (2), 905–918. <https://doi.org/10.1111/nph.17810>.
- van Dijk, E. L.; Thermes, C. A Small RNA-Seq Protocol with Less Bias and Improved Capture of 2'-O-Methyl RNAs. *Methods Mol Biol* **2021**, *2298*, 153–167. https://doi.org/10.1007/978-1-0716-1374-0_10.
- Van Tilbeurgh, M.; Lemdani, K.; Beignon, A.-S.; Chapon, C.; Tchitchek, N.; Cheraitia, L.; Marcos Lopez, E.; Pascal, Q.; Le Grand, R.; Maisonnasse, P.; Manet, C. Predictive Markers of Immunogenicity and Efficacy for Human Vaccines. *Vaccines (Basel)* **2021**, *9* (6), 579. <https://doi.org/10.3390/vaccines9060579>.
- Vernekar, D. V.; Reginato, G.; Adam, C.; Ranjha, L.; Dingli, F.; Marsolier, M.-C.; Loew, D.; Guérois, R.; Llorente, B.; Cejka, P.; Borde, V. The Pif1 Helicase Is Actively Inhibited during Meiotic Recombination Which Restrains Gene Conversion Tract Length. *Nucleic Acids Res* **2021**, *49* (8), 4522–4533. <https://doi.org/10.1093/nar/gkab232>.
- Vigouroux, A.; Meyer, T.; Naretto, A.; Legrand, P.; Aumont-Nicaise, M.; Di Cicco, A.; Renoud, S.; Dore, J.; Levy, D.; Vial, L.; Lavire, C.; Morera, S. Characterization of the First Tetrameric Transcription Factor of the GntR Superfamily with Allosteric Regulation from the Bacterial Pathogen *Agrobacterium Fabrum*. *Nucleic Acids Res.* **2021**, *49* (1), 529–546. <https://doi.org/10.1093/nar/gkaa1181>.
- Villa, T.; Jaszczyszyn, Y.; Libri, D. Data from Crosslinking and Analysis of cDNAs (CRAC) of Nab3 in Yeast Cells Expressing a Circular ncRNA Decoy. *Data Brief* **2021**, *35*, 106951. <https://doi.org/10.1016/j.dib.2021.106951>.

Wang, J.; Toffano-Nioche, C.; Lorieux, F.; Gautheret, D.; Lehmann, J. Accurate Characterization of Escherichia Coli tRNA Modifications with a Simple Method of Deep-Sequencing Library Preparation. *RNA Biol* **2021**, *18* (1), 33–46. <https://doi.org/10.1080/15476286.2020.1790871>.

Wang, Y.; Xue, H.; Pourcel, C.; Du, Y.; Gautheret, D. 2-Kupl: Mapping-Free Variant Detection from DNA-Seq Data of Matched Samples. *BMC Bioinformatics* **2021**, *22* (1), 304. <https://doi.org/10.1186/s12859-021-04185-6>.

2020

Ahmad, L.; Plancqueel, S.; Lazar, N.; Korri-Yousoufi, H.; Li de la Sierra-Gallay, I.; van Tilbeurgh, H.; Salmon, L. Novel N-Substituted 5-Phosphate-d-Arabinonamide Derivatives as Strong Inhibitors of Phosphoglucose Isomerases: Synthesis, Structure-Activity Relationship and Crystallographic Studies. *Bioorg. Chem.* **2020**, *102*, 104048. <https://doi.org/10.1016/j.bioorg.2020.104048>.

Alik, A.; Bouguechtouli, C.; Julien, M.; Bermel, W.; Ghouil, R.; Zinn-Justin, S.; Theillet, F.-X. Sensitivity-Enhanced C-13-NMR Spectroscopy for Monitoring Multisite Phosphorylation at Physiological Temperature and pH. *Angew. Chem.-Int. Edit.* **2020**, *59* (26), 10411–10415. <https://doi.org/10.1002/anie.202002288>.

Andersen, T. B.; Llorente, B.; Morelli, L.; Torres-Montilla, S.; Bordanaba-Florit, G.; Espinosa, F. A.; Rodriguez-Goberna, M. R.; Olmedilla-Alonso, B.; Llansola-Portoles, M. J.; Pascal, A. A.; Rodriguez-Concepcion, M. An Engineered Extrplastidial Pathway for Carotenoid Biofortification of Leaves. *Plant Biotechnology Journal* **2020**. <https://doi.org/10.1111/pbi.13526>.

Andreani, J.; Quignot, C.; Guerois, R. Structural Prediction of Protein Interactions and Docking Using Conservation and Coevolution. *Wiley Interdiscip. Rev.-Comput. Mol. Sci.* **2020**, *10* (6), e1470. <https://doi.org/10.1002/wcms.1470>.

Aráoz, R.; Barnes, P.; Séchet, V.; Delepierre, M.; Zinn-Justin, S.; Molgó, J.; Zakarian, A.; Hess, P.; Servent, D. Cyclic Imine Toxins Survey in Coastal European Shellfish Samples: Bioaccumulation and Mode of Action of 28-O-Palmitoyl Ester of Pinnatoxin-G. First Report of Portimine-A Bioaccumulation. *Harmful Algae* **2020**, *98*, 101887. <https://doi.org/10.1016/j.hal.2020.101887>.

Beilstein, F.; Abou Hamdan, A.; Raux, H.; Belot, L.; Ouldali, M.; Albertini, A. A.; Gaudin, Y. Identification of a pH-Sensitive Switch in VSV-G and a Crystal Structure of the G Pre-Fusion State Highlight the VSV-G Structural Transition Pathway. *Cell Rep* **2020**, *32* (7), 108042. <https://doi.org/10.1016/j.celrep.2020.108042>.

Belot, L.; Ouldali, M.; Roche, S.; Legrand, P.; Gaudin, Y.; Albertini, A. A. Crystal Structure of Mokola Virus Glycoprotein in Its Post-Fusion Conformation. *PLoS Pathog.* **2020**, *16* (3), e1008383. <https://doi.org/10.1371/journal.ppat.1008383>.

Benoist, R.; Capdevielle-Dulac, C.; Chantre, C.; Jeannette, R.; Calatayud, P.-A.; Drezen, J.-M.; Dupas, S.; Le Rouzic, A.; Le Ru, B.; Moreau, L.; Van Dijk, E.; Kaiser, L.; Mougel, F. Quantitative Trait Loci Involved in the Reproductive Success of a Parasitoid Wasp. *Molecular Ecology* **2020**, *29* (18), 3476–3493. <https://doi.org/10.1111/mec.15567>.

Charalambidis, G.; Charisiadis, A.; Margiola, S.; Coutsolelos, A.; Aukauloo, A.; Leibl, W.; Quaranta, A. Efficient Light Activation of a [Ru(Bpy)(Tpy)Cl]⁺ Catalyst by a Porphyrin Photosensitizer at Small Driving Force. *Polyhedron* **2020**, *190*, 114775. <https://doi.org/10.1016/j.poly.2020.114775>.

- Chenebault, C.; Diaz-Santos, E.; Kammerscheit, X.; Görden, S.; Illoaia, C.; Streckaite, S.; Gall, A.; Robert, B.; Marcon, E.; Buisson, D.-A.; Benzerara, K.; Sassi, J.-F.; Cassier-Chauvat, C.; Chauvat, F. A Genetic Toolbox for the New Model Cyanobacterium *Cyanospora* PCC 7425: A Case Study for the Photosynthetic Production of Limonene. *Front Microbiol* **2020**, *11*, 586601. <https://doi.org/10.3389/fmicb.2020.586601>.
- Demay-Drouhard, P.; Ching, H. Y. V.; Decroos, C.; Guillot, R.; Li, Y.; Tabares, L. C.; Policar, C.; Bertrand, H. C.; Un, S. Understanding the Tensors of Perchlorotriphenylmethyl and Finland-Type Trityl Radicals. *Phys. Chem. Chem. Phys.* **2020**, *22* (36), 20792–20800. <https://doi.org/10.1039/d0cp03626a>.
- Demes, E.; Besse, L.; Cubero-Font, P.; Satiat-Jeunemaitre, B.; Thomine, S.; De Angeli, A. Dynamic Measurement of Cytosolic pH and [NO₃⁻] Uncovers the Role of the Vacuolar Transporter AtCLCa in Cytosolic pH Homeostasis. *Proc. Natl. Acad. Sci. U.S.A.* **2020**, *117* (26), 15343–15353. <https://doi.org/10.1073/pnas.2007580117>.
- Dietrich, C.; Li de la Sierra-Gallay, I.; Masi, M.; Girard, E.; Dautin, N.; Constantinesco-Becker, F.; Tropis, M.; Daffé, M.; van Tilbeurgh, H.; Bayan, N. The C-Terminal Domain of *Corynebacterium glutamicum* Mycolyltransferase A Is Composed of Five Repeated Motifs Involved in Cell Wall Binding and Stability. *Mol. Microbiol.* **2020**, *114* (1), 1–16. <https://doi.org/10.1111/mmi.14492>.
- Ehlén, Å.; Martin, C.; Miron, S.; Julien, M.; Theillet, F.-X.; Ropars, V.; Sessa, G.; Beaupere, R.; Boucherit, V.; Duchambon, P.; El Marjou, A.; Zinn-Justin, S.; Carreira, A. Proper Chromosome Alignment Depends on BRCA2 Phosphorylation by PLK1. *Nat Commun* **2020**, *11* (1), 1819. <https://doi.org/10.1038/s41467-020-15689-9>.
- Gotico, P.; Roupnel, L.; Guillot, R.; Sircoglou, M.; Leibl, W.; Halime, Z.; Aukauloo, A. Atropisomeric Hydrogen Bonding Control for CO₂ Binding and Enhancement of Electrocatalytic Reduction at Iron Porphyrins. *Angew Chem Int Ed Engl* **2020**, *59* (50), 22451–22455. <https://doi.org/10.1002/anie.202010859>.
- Ikkene, D.; Arteni, A. A.; Ouldali, M.; Six, J.-L.; Ferji, K. Self-Assembly of Amphiphilic Copolymers Containing Polysaccharide: PISA versus nanoprecipitation, and the Temperature Effect. *Polym. Chem.* **2020**, *11* (29), 4729–4740. <https://doi.org/10.1039/d0py00407c>.
- Julien, M.; Boughechtouli, C.; Alik, A.; Ghouil, R.; Zinn-Justin, S.; Theillet, F.-X. Multiple Site-Specific Phosphorylation of IDPs Monitored by NMR. *Methods Mol. Biol.* **2020**, *2141*, 793–817. https://doi.org/10.1007/978-1-0716-0524-0_41.
- Laleve, A.; Panozzo, C.; Kühl, I.; Bourand-Plantefol, A.; Ostojic, J.; Sissoko, A.; Tribouillard-Tanvier, D.; Cornu, D.; Burg, A.; Meunier, B.; Blondel, M.; Clain, J.; Bonnefoy, N.; Duval, R.; Dujardin, G. Artemisinin and Its Derivatives Target Mitochondrial C-Type Cytochromes in Yeast and Human Cells. *Biochim Biophys Acta Mol Cell Res* **2020**, *1867* (5), 118661. <https://doi.org/10.1016/j.bbamcr.2020.118661>.
- Ledesma-Garcia, L.; Thuillier, J.; Guzman-Espinola, A.; Ensink, I.; Li de la Sierra-Gallay, I.; Lazar, N.; Aumont-Nicaise, M.; Mignolet, J.; Soumillion, P.; Nessler, S.; Hols, P. Molecular Dissection of Pheromone Selectivity in the Competence Signaling System ComRS of *Streptococcus*. *Proc. Natl. Acad. Sci. U.S.A.* **2020**, *117* (14), 7745–7754. <https://doi.org/10.1073/pnas.1916085117>.
- Li de la Sierra-Gallay, I.; Belnou, M.; Chambrud, B.; Genet, M.; van Tilbeurgh, H.; Aumont-Nicaise, M.; Desmadril, M.; Baulieu, E.-E.; Jacquot, Y.; Byrne, C. Bioinspired Hybrid Fluorescent Ligands for the FK1 Domain of FKBP52. *J. Med. Chem.* **2020**, *63* (18), 10330–10338. <https://doi.org/10.1021/acs.jmedchem.0c00825>.

- Marchet, C.; Iqbal, Z.; Gautheret, D.; Salson, M.; Chikhi, R. REINDEER: Efficient Indexing of k-Mer Presence and Abundance in Sequencing Datasets. *Bioinformatics* **2020**, *36* (Supplement_1), i177–i185. <https://doi.org/10.1093/bioinformatics/btaa487>.
- Nadaradjane, A. A.; Quignot, C.; Traoré, S.; Andreani, J.; Guerois, R. Docking Proteins and Peptides under Evolutionary Constraints in Critical Assessment of PRediction of Interactions Rounds 38 to 45. *Proteins: Structure, Function, and Bioinformatics* **2020**, *88* (8), 986–998. <https://doi.org/10.1002/prot.25857>.
- Omrane, M.; Camara, A. S.; Tavenneau, C.; Benzoubir, N.; Tubiana, T.; Yu, J.; Guérois, R.; Samuel, D.; Goud, B.; Poüs, C.; Bressanelli, S.; Garratt, R. C.; Thiam, A. R.; Gassama-Diagne, A. Septin 9 Has Two Polybasic Domains Critical to Septin Filament Assembly and Golgi Integrity. *iScience* **2020**, *13*, 138–153. <https://doi.org/10.1016/j.isci.2019.02.015>.
- Patel, J.; Yuan, X.; Marinho, S. M.; Leibl, W.; Remita, H.; Aukauloo, A. Visible Light-Driven Simultaneous Water Oxidation and Quinone Reduction by a Nano-Structured Conjugated Polymer without Co-Catalysts. *Chem Sci* **2020**, *11* (28), 7324–7328. <https://doi.org/10.1039/d0sc02122a>.
- Phongsavanh, X.; Al-Qatabi, N.; Shaban, M. S.; Khoder-Agha, F.; El Asri, M.; Comisso, M.; Guérois, R.; Mirande, M. How HIV-1 Integrase Associates with Human Mitochondrial Lysyl-TRNA Synthetase. *Viruses* **2020**, *12* (10), 1202. <https://doi.org/10.3390/v12101202>.
- Postic, G.; Marcoux, J.; Reys, V.; Andreani, J.; Vandenbrouck, Y.; Bousquet, M.-P.; Mouton-Barbosa, E.; Cianférani, S.; Burlet-Schiltz, O.; Guerois, R.; Labesse, G.; Tufféry, P. Probing Protein Interaction Networks by Combining MS-Based Proteomics and Structural Data Integration. *J. Proteome Res.* **2020**, *19* (7), 2807–2820. <https://doi.org/10.1021/acs.jproteome.0c00066>.
- Pourcel, C.; Touchon, M.; Villeriot, N.; Vernadet, J.-P.; Couvin, D.; Toffano-Nioche, C.; Vergnaud, G. CRISPRCasdb a Successor of CRISPRdb Containing CRISPR Arrays and Cas Genes from Complete Genome Sequences, and Tools to Download and Query Lists of Repeats and Spacers. *Nucleic Acids Res.* **2020**, *48* (D1), D535–D544. <https://doi.org/10.1093/nar/gkz915>.
- Rahman, M. M.; Mohiuddin, M.; Shamima Keka, I.; Yamada, K.; Tsuda, M.; Sasanuma, H.; Andreani, J.; Guerois, R.; Borde, V.; Charbonnier, J.-B.; Takeda, S. Genetic Evidence for the Involvement of Mismatch Repair Proteins, PMS2 and MLH3, in a Late Step of Homologous Recombination. *J Biol Chem* **2020**, *295* (51), 17460–17475. <https://doi.org/10.1074/jbc.RA120.013521>.
- Rochin, L.; Sauvanet, C.; Jääskeläinen, E.; Houcine, A.; Kivelä, A.; Ma, X.; Marien, E.; Dehairs, J.; Neveu, J.; Le Bars, R.; Swinnen, J.; Bernard, D.; Taresté, D.; Olkkonen, V. M.; Giordano, F. ORP5 Transfers Phosphatidylserine To Mitochondria And Regulates Mitochondrial Calcium Uptake At Endoplasmic Reticulum - Mitochondria Contact Sites. *bioRxiv* **2020**, 695577. <https://doi.org/10.1101/695577>.
- Sanchez, A.; Adam, C.; Rauh, F.; Duroc, Y.; Ranjha, L.; Lombard, B.; Mu, X.; Wintrebert, M.; Loew, D.; Guarné, A.; Gnan, S.; Chen, C.-L.; Keeney, S.; Cejka, P.; Guérois, R.; Klein, F.; Charbonnier, J.-B.; Borde, V. Exo1 Recruits Cdc5 Polo Kinase to MutLγ to Ensure Efficient Meiotic Crossover Formation. *Proc. Natl. Acad. Sci. U.S.A.* **2020**, *117* (48), 30577–30588. <https://doi.org/10.1073/pnas.2013012117>.
- Vigouroux, A.; Aumont-Nicaise, M.; Boussac, A.; Marty, L.; Lo Bello, L.; Legrand, P.; Brillet, K.; Schalk, I. J.; Moréra, S. A Unique Ferrous Iron Binding Mode Is Associated to Large Conformational Changes for the Transport Protein FpvC of *Pseudomonas Aeruginosa*. *FEBS J.* **2020**, *287* (2), 295–309. <https://doi.org/10.1111/febs.15004>.