

138 peer-reviewed research articles mentioning ANR-17-EURE-0003 and GRAL and/or ANR-10-LABX-49-01 published in 2022, listed by alphabetical order:

- (1) Abi Nahed, R.; Elkhoury Mikhael, M.; Reynaud, D.; Collet, C.; Lemaitre, N.; Michy, T.; Hoffmann, P.; Sergent, F.; Marquette, C.; Murthi, P.; Raia-Barjat, T.; Alfaidy, N.; Benharouga, M. Role of NLRP7 in Normal and Malignant Trophoblast Cells. *Biomedicines* **2022**, *10*(2), 252. <https://doi.org/10.3390/biomedicines10020252>.
- (2) Adam, V.; Hadjidemetriou, K.; Jensen, N.; Shoeman, R. L.; Woodhouse, J.; Aquila, A.; Banneville, A.-S.; Barends, T. R.; Bezchastnov, V.; Boutet, S.; Byrdin, M.; Cammarata, M.; Carbajo, S.; Christou, N. E.; Coquelle, N.; de la Mora, E.; El Khatib, M.; Moreno Chicano, T.; Doak, R. B.; Fieschi, F.; Foucar, L.; Glushonkov, O.; Gorel, A.; Grünbein, M. L.; Hilpert, M.; Hunter, M. S.; Kloos, M.; Koglin, J. E.; Lane, T. J.; Liang, M.; Mantovanelli, A. M.; Nass, K.; Kovacs, G. N.; Owada, S.; Roome, C. M.; Schirò, G.; Seaberg, M.; Stricker, M.; Thépaut, M.; Tono, K.; Ueda, K.; Uriarte, L. M.; You, D.; Zala, N.; Domratcheva, T.; Jakobs, S.; Sliwa, M.; Schlichting, I.; Colletier, J.-P.; Bourgeois, D.; Weik, M. Rational Control of Off-State Heterogeneity in a Photoswitchable Fluorescent Protein Provides Switching Contrast Enhancement. *ChemPhysChem* **2022**, *23*(19), e202200192. <https://doi.org/10.1002/cphc.202200192>.
- (3) Amara, P.; Saragaglia, C.; Mouesca, J.-M.; Martin, L.; Nicolet, Y. L-Tyrosine-Bound ThiH Structure Reveals C-C Bond Break Differences within Radical SAM Aromatic Amino Acid Lyases. *Nature communications* **2022**, *13*(1), 1-11. <https://doi.org/10.1038/s41467-022-29980-4>.
- (4) Annunziata, R.; Mele, B. H.; Marotta, P.; Volpe, M.; Entrambasaguas, L.; Mager, S.; Stec, K.; d'Alcalà, M. R.; Sanges, R.; Finazzi, G.; Iudicone, D.; Montresor, M.; Ferrante, M. I. Trade-off between Sex and Growth in Diatoms: Molecular Mechanisms and Demographic Implications. *Science advances* **2022**, *8*(3), eabj9466. <https://doi.org/10.1126/sciadv.abj9466>.
- (5) Araújo, L. dos S. S.; Watson, L.; Traore, D. A.; Lazzara, G.; Chiappisi, L. Hierarchical Assembly of PH-Responsive Surfactant-Cyclodextrin Complexes. *Soft Matter* **2022**, *18*(35), 6529–6537. <https://doi.org/10.1039/d2sm00807f>.
- (6) Arragain, B.; Durieux Trouillet, Q.; Baudin, F.; Provaznik, J.; Azevedo, N.; Cusack, S.; Schoehn, G.; Malet, H. Structural Snapshots of La Crosse Virus Polymerase Reveal the Mechanisms Underlying Peribunyaviridae Replication and Transcription. *Nature communications* **2022**, *13*(1), 1-16. <https://doi.org/10.1038/s41467-022-28428-z>.
- (7) Astashkin, R.; Kovalev, K.; Bukhdruker, S.; Vaganova, S.; Kuzmin, A.; Alekseev, A.; Balandin, T.; Zabelskii, D.; Gushchin, I.; Royant, A.; Volkov, D.; Bourenkov, G.; Koonin, E.; Engelhard, M.; Bamberg, E.; Gordeliy, V. Structural Insights into Light-Driven Anion Pumping in Cyanobacteria. *Nature Communications* **2022**, *13*(1), 1-13. <https://doi.org/10.1038/s41467-022-34019-9>.
- (8) Aumonier, S.; Engilberge, S.; Caramello, N.; von Stetten, D.; Gotthard, G.; Leonard, G. A.; Mueller-Dieckmann, C.; Royant, A. Slow Protein Dynamics Probed by Time-Resolved Oscillation Crystallography at Room Temperature. *IUCrJ* **2022**, *9*(6). <https://doi.org/10.1107/S2052252522009150>.
- (9) Banneville, A.-S.; Bouthier de la Tour, C.; De Bonis, S.; Hognon, C.; Colletier, J.-P.; Teulon, J.-M.; Le Roy, A.; Pellequer, J.-L.; Monari, A.; Dehez, F.; Confalonieri, F.; Servant, P.; Timmins, J. Structural and Functional Characterization of DdrC, a Novel DNA Damage-Induced Nucleoid Associated Protein Involved in DNA Compaction. *Nucleic Acids Research* **2022**, *50*(13), 7680–7696. <https://doi.org/10.1093/nar/gkac563>.
- (10) Barbone, G. E.; Bravin, A.; Mittone, A.; Pacureanu, A.; Mascio, G.; Di Pietro, P.; Kraiger, M. J.; Eckermann, M.; Romano, M.; Hrabě de Angelis, M.; Cloetens, P.; Bruno, V.; Battaglia, G.; Coan, P. X-Ray Multiscale 3D Neuroimaging to Quantify Cellular Aging and Neurodegeneration Postmortem in a Model of Alzheimer's Disease. *European Journal of Nuclear Medicine and Molecular Imaging* **2022**, *49*(13), 4338–4357. <https://doi.org/10.1007/s00259-022-05896-5>.
- (11) Barnault, R.; Verzeroli, C.; Fournier, C.; Michelet, M.; Redavid, A. R.; Chicherova, I.; Plissonnier, M.-L.; Adrait, A.; Khomich, O.; Chapus, F.; Richaud, M.; Hervieu, M.; Reiterer, V.; Centonze, F. G.; Lucifora, J.; Bartosh, B.; Rivoire, M.; Farhan, H.; Couté, Y.; Mirakaj, V.; Decaens, T.; Mehlen, P.; Gibert, B.; Zoulim, F.; Parent, R. Hepatic Inflammation Elicits Production of Proinflammatory Netrin-1 through Exclusive Activation of Translation. *Hepatology* **2022**, *76*(5), 1345–1359. <https://doi.org/10.1002/hep.32446>.
- (12) Ben Amar, D.; Thoinet, K.; Villalard, B.; Imbaud, O.; Costechareyre, C.; Jarrosson, L.; Reynaud, F.; Novion Ducassou, J.; Couté, Y.; Brunet, J.-F.; Combaret, V.; Corradini, N.; Delloye-Bourgeois, C.; Castellani, V. Environmental Cues from Neural Crest Derivatives Act as Metastatic Triggers in an Embryonic Neuroblastoma Model. *Nature communications* **2022**, *13*(1), 1-18. <https://doi.org/10.1038/s41467-022-30237-3>.
- (13) Bernaudat, F.; Gustems, M.; Günther, J.; Oliva, M. F.; Buschle, A.; Göbel, C.; Pagniez, P.; Lupo, J.; Signor, L.; Müller, C. W.; Morand, P.; Sattler, M.; Hammerschmidt, W.; Petosa, C. Structural Basis of DNA Methylation-Dependent Site Selectivity of the Epstein-Barr Virus Lytic Switch Protein ZEBRA/Zta/BZLF1. *Nucleic acids research* **2022**, *50*(1), 490–511. <https://doi.org/10.1093/nar/gkab1183>.
- (14) Bertuzzi, S.; Peccati, F.; Serna, S.; Artschwager, R.; Notova, S.; Thépaut, M.; Jiménez-Osés, G.; Fieschi, F.; Reichardt, N. C.; Jiménez-Barbero, J.; Ardá, A. Immobilization of Biantennary N-Glycans Leads to Branch Specific Epitope Recognition by LSECtin. *ACS Central Science* **2022**, *8*(10), 1415–1423. <https://doi.org/10.1021/acscentsci.2c00719>.
- (15) Bessa, L. M.; Guseva, S.; Camacho-Zarco, A. R.; Salvi, N.; Maurin, D.; Perez, L. M.; Botova, M.; Malki, A.; Nanao, M.; Jensen, M. R.; Ruigrok, R. W.; Blackledge, M. The Intrinsically Disordered SARS-CoV-2 Nucleoprotein in Dynamic Complex with Its Viral Partner Nsp3a. *Science advances* **2022**, *8*(3), eabm4034. <https://doi.org/10.1126/sciadv.abm4034>.
- (16) Besson, S.; Boucher, E.; Laurin, D.; Manches, O.; Aspord, C.; Hannani, D.; Fender, P. Stimulation of the Immune System by a Tumor Antigen Bearing Adenovirus-Inspired VLP Allows the Control of Melanoma Growth. *Molecular Therapy-Methods & Clinical Development* **2022**. <https://doi.org/10.1016/j.omtm.2022.12.003>.
- (17) Besson, S.; Laurin, D.; Chauvière, C.; Thépaut, M.; Kleman, J.-P.; Pezet, M.; Manches, O.; Fieschi, F.; Aspord, C.; Fender, P. Adenovirus-Inspired Virus-Like-Particles Displaying Melanoma Tumor Antigen Specifically Target Human DC Subsets and Trigger Antigen-Specific Immune Responses. *Biomedicines* **2022**, *10*(11), 2881. <https://doi.org/10.3390/biomedicines10112881>.
- (18) Blanch Jover, A.; De Franceschi, N.; Fenel, D.; Weissenhorn, W.; Dekker, C. The Archaeal Division Protein CdvB1 Assembles into Polymers That Are Depolymerized by CdvC. *FEBS letters* **2022**, *596*(7), 958–969. <https://doi.org/10.1002/1873-3468.14324>.

- (19) Bolik, S.; Albrieux, C.; Schneck, E.; Demé, B.; Jouhet, J. Sulfoquinovosyldiacylglycerol and Phosphatidylglycerol Bilayers Share Biophysical Properties and Are Good Mutual Substitutes in Photosynthetic Membranes. *Biochimica et Biophysica Acta (BBA)-Biomembranes* **2022**, *1864* (12), 184037. <https://doi.org/10.1016/j.bbamem.2022.184037>.
- (20) Bolik, S.; Demé, B.; Jouhet, J. Biophysical Properties of Glycerolipids and Their Impact on Membrane Architecture and Biology. *Advances in Botanical Research* **2022**, *101*, 1–57. <https://doi.org/10.1016/bs.abr.2021.09.001>.
- (21) Bourhis, J.-M.; Yabukarski, F.; Communie, G.; Schneider, R.; Volchkova, V. A.; Frénat, M.; Gérard, F. C.; Ducournau, C.; Mas, C.; Tarbouriech, N.; Jensen, M. R.; Volchkov, V. E.; Blackledge, M.; Jamin, M. Structural Dynamics of the C-Terminal X Domain of Nipah and Hendra Viruses Controls the Attachment to the C-Terminal Tail of the Nucleocapsid Protein. *Journal of Molecular Biology* **2022**, *434* (10), 167551.
- (22) Bouvard, C.; Tu, L.; Rossi, M.; Desroches-Castan, A.; Berrebeh, N.; Helfer, E.; Roelants, C.; Liu, H.; Ouarne, M.; Chaumontel, N.; Mallet, C.; Battail, C.; Bikfalvi, A.; Humbert, M.; Savale, L.; Daubon, T.; Perret, P.; Tillet, E.; Guignabert, C.; Bailly, S. Different Cardiovascular and Pulmonary Phenotypes for Single-and Double-Knock-out Mice Deficient in BMP9 and BMP10. *Cardiovascular Research* **2022**, *118* (7), 1805–1820. <https://doi.org/10.1093/cvr/cvab187>.
- (23) Burger, T. Can Omics Biology Go Subjective Because of Artificial Intelligence? A Comment on “Challenges and Opportunities for Bayesian Statistics in Proteomics” by Crook et Al. *Journal of Proteome Research* **2022**. <https://doi.org/10.1021/acs.jproteome.2c00161>.
- (24) Bussoa, A.; Tubbs, E.; Revol-Cavalier, F.; Chmayssem, A.; Alessio, M.; Cosnier, M.-L.; Verplanck, N. Real-Time Monitoring of Oxygen Levels within Thermoplastic Organ-on-Chip Devices. *Biosensors and Bioelectronics: X* **2022**, *11*, 100198. <https://doi.org/10.1016/j.biosx.2022.100198>.
- (25) Camacho-Zarco, A. R.; Schnapka, V.; Guseva, S.; Abyzov, A.; Adamski, W.; Milles, S.; Jensen, M. R.; Zidek, L.; Salvi, N.; Blackledge, M. NMR Provides Unique Insight into the Functional Dynamics and Interactions of Intrinsically Disordered Proteins. *Chemical Reviews* **2022**, *122* (10), 9331–9356. <https://doi.org/10.1021/acs.chemrev.1c01023>.
- (26) Cancé, C.; Martin-Arevalillo, R.; Boubekeur, K.; Dumas, R. Auxin Response Factors Are Keys to the Many Auxin Doors. *New Phytologist* **2022**. <https://doi.org/10.1111/nph.18159>.
- (27) Capizzi, M.; Carpentier, R.; Denarier, E.; Adrait, A.; Kassem, R.; Mapelli, M.; Couté, Y.; Humbert, S. Developmental Defects in Huntington’s Disease Show That Axonal Growth and Microtubule Reorganization Require NUMA1. *Neuron* **2022**, *110* (1), 36–50. <https://doi.org/10.1016/j.neuron.2021.10.033>.
- (28) Caron, M.; Gely, L.; Garvis, S.; Adrait, A.; Couté, Y.; Palladino, F.; Fabrizio, P. Loss of SET1/COMPASS Methyltransferase Activity Reduces Lifespan and Fertility in Caenorhabditis Elegans. *Life science alliance* **2022**, *5* (3). <https://doi.org/10.26508/lisa.20210140>.
- (29) Castro-Mondragon, J. A.; Riudavets-Puig, R.; Rauluseviciute, I.; Berhanu Lemma, R.; Turchi, L.; Blanc-Mathieu, R.; Lucas, J.; Boddie, P.; Khan, A.; Manosalva Pérez, N.; Fornes, O.; Leung, T. Y.; Aguirre, A.; Hammal, F.; Schmelter, D.; Baranasic, D.; Ballester, B.; Sandelin, A.; Lenhard, B.; Vandepoele, K.; Wasserman, W. W.; Parcy, F.; Mathelier, A. JASPAR 2022: The 9th Release of the Open-Access Database of Transcription Factor Binding Profiles. *Nucleic acids research* **2022**, *50* (D1), D165–D173. <https://doi.org/10.1093/nar/gkab113>.
- (30) Chambon, L.; Gillet, F.-X.; Chieb, M.; Cobessi, D.; Pfannschmidt, T.; Blanvillain, R. PAP8/PTAC6 Is Part of a Nuclear Protein Complex and Displays RNA Recognition Motifs of Viral Origin. *International journal of molecular sciences* **2022**, *23* (6), 3059. <https://doi.org/10.3390/ijms23063059>.
- (31) Chaptal, V.; Zampieri, V.; Wiseman, B.; Orelle, C.; Martin, J.; Nguyen, K.-A.; Gobet, A.; Di Cesare, M.; Magnard, S.; Javed, W.; Eid, J.; Kilburg, A.; Peuchmaur, M.; Marcoux, J.; Monticelli, L.; Hogbom, M.; Schoehn, G.; Jault, J.-M.; Boumendjel, A.; Falson, P. Substrate-Bound and Substrate-Free Outward-Facing Structures of a Multidrug ABC Exporter. *Science advances* **2022**, *8* (4), eabg9215. <https://doi.org/10.1126/sciadv.abg9215>.
- (32) Charbonnier, P.; Chovelon, B.; Ravelet, C.; Ngo, T. D.; Chevallot, M.; Deniaud, A. ATP7B-Deficient Hepatocytes Reveal the Importance of Protein Misfolding Induced at Low Copper Concentration. *Cells* **2022**, *11* (21), 3400. <https://doi.org/10.3390/cells11213400>.
- (33) Cheong, K. Y.; Jouhet, J.; Maréchal, E.; Falkowski, P. G. The Redox State of the Plastoquinone (PQ) Pool Is Connected to Thylakoid Lipid Saturation in a Marine Diatom. *Photosynthesis research* **2022**, *1*–12. <https://doi.org/10.1007/s11120-022-00914-x>.
- (34) Cherrier, M. V.; Vernède, X.; Fenel, D.; Martin, L.; Arragain, B.; Neumann, E.; Fontecilla-Camps, J. C.; Schoehn, G.; Nicolet, Y. Oxygen-Sensitive Metalloprotein Structure Determination by Cryo-Electron Microscopy. *Biomolecules* **2022**, *12* (3), 441.
- (35) Chevillard, C.; Amen, A.; Besson, S.; Hannani, D.; Bally, I.; Dettling, V.; Gout, E.; Moreau, C. J.; Buisson, M.; Gallet, S.; Fenel, D.; Vassal-Sternmann, E.; Schoehn, G.; Poignard, P.; Dagher, M.-C.; Fender, P. Elicitation of Potent SARS-CoV-2 Neutralizing Antibody Responses through Immunization with a Versatile Adenovirus-Inspired Multimerization Platform. *Molecular Therapy* **2022**, *30* (5), 1913–1925. <https://doi.org/10.1016/j.ymthe.2022.02.011>.
- (36) Chouquet, A.; Pinto, A. J.; Hennicke, J.; Ling, W. L.; Bally, I.; Schwaigerlehner, L.; Thielen, N. M.; Kunert, R.; Reiser, J.-B. Biophysical Characterization of the Oligomeric States of Recombinant Immunoglobulins Type-M and Their Clq-Binding Kinetics by Biolayer Interferometry. *Frontiers in Bioengineering and Biotechnology* **2022**, *7*, 49. <https://doi.org/10.3389/fbioe.2022.816275>.
- (37) Clément, F.; Nougarède, A.; Combe, S.; Kermarrec, F.; Dey, A. K.; Obeid, P.; Millet, A.; Navarro, F. P.; Marche, P. N.; Sulpice, E.; Gidrol, X. Therapeutic siRNAs Targeting the JAK/STAT Signalling Pathway in Inflammatory Bowel Diseases. *Journal of Crohn’s and Colitis* **2022**, *16* (2), 286–300. <https://doi.org/10.1093/ecco-jcc/jjab129>.
- (38) Cojocaru, R.; Mannix, O.; Capron, M.; Miller, C. G.; Jouneau, P.-H.; Gallet, B.; Falconet, D.; Pacureanu, A.; Stukins, S. A Biological Nanofoam: The Wall of Coniferous Bisaccate Pollen. *Science advances* **2022**, *8* (6), eabd0892. <https://doi.org/10.1126/sciadv.abd0892>.
- (39) Collin-Faure, V.; Dalzon, B.; Devcic, J.; Diemer, H.; Cianfréani, S.; Rabilloud, T. Does Size Matter? A Proteomics-Informed Comparison of the Effects of Polystyrene Beads of Different Sizes on Macrophages. *Environmental Science: Nano* **2022**, *9* (8), 2827–2840. <https://doi.org/10.1039/D2EN00214K>.
- (40) Courçon, M.; Badiou, C.; Louwagie, M.; Etievant, S.; Jaquinod, M.; Lina, G.; Brun, V. Targeted Proteomics Analysis of Staphylococcal Superantigenic Toxins in Menstrual Fluid from Women with Menstrual Toxic Shock Syndrome (MTSS). *Toxins* **2022**, *14* (12), 886. <https://doi.org/10.3390/toxins14120886>.

- (41) da Silva Barreira, D.; Lapaquette, P.; Novion Ducassou, J.; Couté, Y.; Guzzo, J.; Rieu, A. Spontaneous Prophage Induction Contributes to the Production of Membrane Vesicles by the Gram-Positive Bacterium Lacticaseibacillus Casei BL23. *Mbio* **2022**, *13*(5), e02375-22. <https://doi.org/10.1128/mbio.02375-22>.
- (42) Decelle, J.; Kayal, E.; Bigeard, E.; Gallet, B.; Bougoure, J.; Clode, P.; Schieber, N.; Templin, R.; Hehenberger, E.; Prensier, G.; Chevalier, F.; Schwab, Y.; Guillou, L. Intracellular Development and Impact of a Marine Eukaryotic Parasite on Its Zombified Microalgal Host. *The ISME Journal* **2022**, *16*(10), 2348–2359.
- (43) Desroches-Castan, A.; Tillet, E.; Bouvard, C.; Bailly, S. BMP9 and BMP10: Two Close Vascular Quiescence Partners That Stand Out. *Developmental Dynamics* **2022**, *251*(1), 158–177. <https://doi.org/10.1002/dvdy.395>.
- (44) Devcic, J.; Dussol, M.; Collin-Faure, V.; Pérand, J.; Fenel, D.; Schoehn, G.; Carrière, M.; Rabilloud, T.; Dalzon, B. Immediate and Sustained Effects of Cobalt and Zinc-Containing Pigments on Macrophages. *Frontiers in Immunology* **2022**, *13*, 865239.
- (45) Di Micco, S.; Rahimova, R.; Sala, M.; Scala, M. C.; Vivenzio, G.; Musella, S.; Andrei, G.; Remans, K.; Mammri, L.; Snoeck, R.; Bifulco, G.; Di Matteo, F.; Vestuto, V.; Campiglia, P.; Marquez, J. A.; Fasano, A. Rational Design of the Zonulin Inhibitor AT1001 Derivatives as Potential Anti SARS-CoV-2. *European Journal of Medicinal Chemistry* **2022**, *244*, 114857. <https://doi.org/10.1016/j.ejmech.2022.114857>.
- (46) Dolce, L. G.; Zimmer, A. A.; Tengo, L.; Weis, F.; Rubio, M. A. T.; Alfonzo, J. D.; Kowalinski, E. Structural Basis for Sequence-Independent Substrate Selection by Eukaryotic Wobble Base tRNA Deaminase ADAT2/3. *Nature Communications* **2022**, *13*(1), 1–13. <https://doi.org/10.1038/s41467-022-34441-z>.
- (47) Dragic, H.; Barthelaix, A.; Duret, C.; Le Gouplil, S.; Laprade, H.; Martin, S.; Brugière, S.; Couté, Y.; Machon, C.; Guitton, J.; Rudewicz, J.; Hofman, P.; Lebecque, S.; Chaveroux, C.; Ferraro-Peyret, C.; Renno, T.; Manié, S. N. The Hexosamine Pathway and Coat Complex II Promote Malignant Adaptation to Nutrient Scarcity. *Life science alliance* **2022**, *5*(7). <https://doi.org/10.26508/lisa.202101334>.
- (48) Duong, M.-T.; Sharma, K.; Agnese, F.; Rouviere, J.-L.; Okuno, H.; Pouget, S.; Reiss, P.; Ling, W. L. Practice of Electron Microscopy on Nanoparticles Sensitive to Radiation Damage: CsPbBr₃ Nanocrystals as a Case Study. *Frontiers in Chemistry* **2022**, *10*, 1553. <https://doi.org/10.3389/fchem.2022.1058620>.
- (49) Duong, T. M.; Aldakov, D.; Pouget, S.; Ling, W. L.; Dang, L. S.; Nogues, G.; Reiss, P. Room-Temperature Doping of CsPbBr₃ Nanocrystals with Aluminum. *The Journal of Physical Chemistry Letters* **2022**, *13*, 4495–4500. <https://doi.org/10.3389/fchem.2022.1058620>.
- (50) El Masri, R.; Seffouh, A.; Roelants, C.; Seffouh, I.; Gout, E.; Pérand, J.; Dalonneau, F.; Nishitsuji, K.; Noborn, F.; Nikpour, M.; Larson, G.; Crétinon, Y.; Friedel-Arboleas, M.; Uchimura, K.; Daniel, R.; Lortat-Jacob, H.; Filhol, O.; Vivès, R. R. Extracellular Endosulfatase Sulf-2 Harbors a Chondroitin/Dermatan Sulfate Chain That Modulates Its Enzyme Activity. *Cell Reports* **2022**, *38*(11), 110516. <https://doi.org/10.1016/j.celrep.2022.110516>.
- (51) Etourneau, L.; Burger, T. Challenging Targets or Describing Mismatches? A Comment on Common Decoy Distribution by Madej et al. *Journal of Proteome Research* **2022**, *21*(12), 2840–2845. <https://doi.org/10.1021/acs.jproteome.2c00279>.
- (52) Falchi, F. A.; Taylor, R. J.; Rowe, S. J.; Moura, E. C.; Baeta, T.; Laguri, C.; Simorre, J.-P.; Kahne, D. E.; Polissi, A.; Sperandeo, P. Suppressor Mutations in LptF Bypass Essentiality of LptC by Forming a Six-Protein Transenvelope Bridge That Efficiently Transports Lipopolysaccharide. *Mbio* **2022**, e02202-22. <https://doi.org/10.1128/mbio.02202-22>.
- (53) Fancello, L.; Burger, T. An Analysis of Proteogenomics and How and When Transcriptome-Informed Reduction of Protein Databases Can Enhance Eukaryotic Proteomics. *Genome Biology* **2022**, *23*(1), 1–23. <https://doi.org/10.1186/s13059-022-02701-2>.
- (54) Felix, J.; Bumba, L.; Liesche, C.; Fraudeau, A.; Rébeillé, F.; El Khoury, J. Y.; Huard, K.; Gallet, B.; Moriscot, C.; Kleman, J.-P.; Duhoo, Y.; Jessop, M.; Kandiah, E.; Barras, F.; Jouhet, J.; Gutsche, I. The AAA+ ATPase Rava and Its Binding Partner ViaA Modulate E. Coli Aminoglycoside Sensitivity through Interaction with the Inner Membrane. *Nature Communications* **2022**, *13*(5502). <https://doi.org/10.1038/s41467-022-32992-9>.
- (55) Filhol, O.; Hesse, A.-M.; Bouin, A.-P.; Albigès-Rizo, C.; Jeanneret, F.; Battail, C.; Pflieger, D.; Cochet, C. CK2β Is a Gatekeeper of Focal Adhesions Regulating Cell Spreading. *Frontiers in Molecular Biosciences* **2022**, *9*. <https://doi.org/10.3389/fmolb.2022.900947>.
- (56) Flanders, P. L.; Contreras-Martel, C.; Brown, N. W.; Shirley, J. D.; Martins, A.; Nauta, K. N.; Dessen, A.; Carlson, E. E.; Ambrose, E. A. Combined Structural Analysis and Molecular Dynamics Reveal Penicillin-Binding Protein Inhibition Mode with β-Lactones. *ACS Chemical Biology* **2022**, *17*(11), 3110–3120.
- (57) Foucher, A.-E.; Touat-Todeschini, L.; Juarez-Martinez, A. B.; Rakitch, A.; Laroussi, H.; Karczewski, C.; Acajjaoui, S.; Soler-López, M.; Cusack, S.; Mackereth, C. D.; Verdel, A.; Kadlec, J. Structural Analysis of Red1 as a Conserved Scaffold of the RNA-Targeting MTREC/PAXT Complex. *Nature Communications* **2022**, *13*(1), 1–17. <https://doi.org/10.1038/s41467-022-32542-3>.
- (58) Gauto, D. F.; Lebedenko, O. O.; Becker, L. M.; Ayala, I.; Lichtenecker, R.; Skrynnikov, N. R.; Schanda, P. Aromatic Ring Flips in Differently Packed Ubiquitin Protein Crystals from MAS NMR and MD. *Journal of Structural Biology: X* **2022**, 100079. <https://doi.org/10.1016/j.jysbx.2022.100079>.
- (59) Gauto, D. F.; Macek, P.; Malinverni, D.; Fraga, H.; Paloni, M.; Sučec, I.; Hessel, A.; Bustamante, J. P.; Barducci, A.; Schanda, P. Functional Control of a 0.5 MDa TET Aminopeptidase by a Flexible Loop Revealed by MAS NMR. *Nature Communications* **2022**, *13*(1), 1–13. <https://doi.org/10.1038/s41467-022-29423-0>.
- (60) Genua, M.; Garçon, L.-A.; Sergeeva, Y. N.; Saesen, E.; Musnier, B.; Buhot, A.; Billon, M.; Gout, E.; Sadir, R.; Lortat-Jacob, H.; Le Narvor, C.; Bonnaffé, D.; Livache, T.; Hou, Y. Discrimination of Deletion to Point Cytokine Mutants Based on an Array of Cross-Reactive Receptors Mimicking Protein Recognition by Heparan Sulfate. *Analytical and Bioanalytical Chemistry* **2022**, *414*(1), 551–559. <https://doi.org/10.1007/s00216-021-03516-z>.
- (61) Gilbert, A.; Payet, V.; Bernay, B.; Chartier-Garcia, E.; Testard, I.; Candéias, S. M.; Chevalier, F. Label-Free Direct Mass Spectrometry Analysis of the Bystander Effects Induced in Chondrocytes by Chondrosarcoma Cells Irradiated with X-Rays and Carbon Ions. *Frontiers in Bioscience-Landmark* **2022**, *27*(9), 277. <https://doi.org/10.31083/j.fbl2709277>.
- (62) Gory-Fauré, S.; Delaroche, J.; Cuveillier, C.; Delphin, C.; Arnal, I. Cryo-EM Visualization of Neuronal Particles Inside Microtubules. In *Microtubules*;

- Methods in Molecular Biology; Springer, 2022; pp 375–383.
- (63) Goti, G.; Colombo, C.; Achilli, S.; Vivès, C.; Thépaut, M.; Luczkowiak, J.; Labiod, N.; Delgado, R.; Fieschi, F.; Bernardi, A. Precision Glycodendrimers for DC-SIGN Targeting. *European Journal of Organic Chemistry* **2022**, 2022(29), e202200113. <https://doi.org/10.1002/ejoc.202200113>.
- (64) Guillou, A.; Brea-Diakite, D.; Cezard, A.; Wacquez, A.; Baranek, T.; Bourgeais, J.; Picou, F.; Vasseur, V.; Meyer, L.; Chevalier, C.; Auvert, A.; Carballido, J. M.; Nadal Desbarats, L.; Dinglit, F.; Turtoi, A.; Le Gouellec, A.; Fauville, F.; Donchet, A.; Crépin, T.; Hiemstra, P. S.; Paget, C.; Loew, D.; Heraut, O.; Naffakh, N.; Le Goffic, R.; Si-Tahar, M. Host Succinate Inhibits Influenza Virus Infection through Succinylation and Nuclear Retention of the Viral Nucleoprotein. *The EMBO Journal* **2022**, e108306. <https://doi.org/10.15252/embj.2021108306>.
- (65) Hadjidemetriou, K.; Coquelle, N.; Barends, T. R.; De Zitter, E.; Schlichting, I.; Colletier, J.-P.; Weik, M. Time-Resolved Serial Femtosecond Crystallography on Fatty-Acid Photodecarboxylase: Lessons Learned. *Acta Crystallographica Section D: Structural Biology* **2022**, 78(9). <https://doi.org/10.1107/S2059798322007525>.
- (66) Hao, X.; Chen, W.; Amato, A.; Jouhet, J.; Maréchal, E.; Moog, D.; Hu, H.; Jin, H.; You, L.; Huang, F.; Mossburner, M.; Allen, A. E.; Gong, Y. Multiplexed CRISPR/Cas9 Editing of the Long-Chain Acyl-CoA Synthetase Family in the Diatom Phaeodactylum Tricornutum Reveals That Mitochondrial PtACSL3 Is Involved in the Synthesis of Storage Lipids. *New Phytologist* **2022**, 233(4), 1797–1812. <https://doi.org/10.1111/nph.17911>.
- (67) Henot, F.; Crublet, E.; Frech, M.; Boisbouvier, J. NMR Assignment of Human HSP90 N-Terminal Domain Bound to a Long Residence Time Resorcinol Ligand. *Biomolecular NMR Assignments* **2022**, 16(2), 257–266. <https://doi.org/10.1007/s12104-022-10089-0>.
- (68) Hogrel, G.; Marino-Puertas, L.; Laurent, S.; Ibrahim, Z.; Covès, J.; Girard, E.; Gabel, F.; Fenel, D.; Daugeron, M.; Clouet-d'Orval, B.; Basta, T.; Flament, D.; Franzetti, B. Characterization of a Small tRNA-Binding Protein That Interacts with the Archaeal Proteasome Complex. *Molecular Microbiology* **2022**, 118(1-2), 16–29. <https://doi.org/10.1111/mmi.14948>.
- (69) Hutin, S.; Ling, W. L.; Tarbouriech, N.; Schoehn, G.; Grimm, C.; Fischer, U.; Burmeister, W. P. The Vaccinia Virus DNA Helicase Structure from Combined Single-Particle Cryo-Electron Microscopy and AlphaFold2 Prediction. *Viruses* **2022**, 14(10), 2206. <https://doi.org/10.3390/v14102206>.
- (70) Ielasi, F. S.; Ternifi, S.; Fontaine, E.; Iuso, D.; Couté, Y.; Palencia, A. Human Histone Pre-mRNA Assembles Histone or Canonical mRNA-Processing Complexes by Overlapping 3'-End Sequence Elements. *Nucleic Acids Research* **2022**, 50(21), 12425–12443. <https://doi.org/10.1093/nar/gkac878>.
- (71) Indorato, R.-L.; DeBonis, S.; Garcia-Saez, I.; Skoufias, D. A. Drug Resistance Dependent on Allostery: A P-Loop Rigor Eg5 Mutant Exhibits Resistance to Allosteric Inhibition by STLC. *Frontiers in Oncology* **2022**, 12, 965455. <https://doi.org/10.3389/fonc.2022.965455>.
- (72) Javed, W.; Vallet, S.; Clement, M.-P.; Le Roy, A.; Moulin, M.; Härtlein, M.; Breyton, C.; Burlet-Schiltz, O.; Marcoux, J.; Orelle, C.; Ebel, C.; Martel, A.; Jault, J.-M. Structural Insights into the Catalytic Cycle of a Bacterial Multidrug ABC Efflux Pump. *Journal of Molecular Biology* **2022**, 434(9), 167541. <https://doi.org/10.1016/j.jmb.2022.167541>.
- (73) Job, V.; Gomez-Valero, L.; Renier, A.; Rusniok, C.; Bouillot, S.; Chenal-Francisque, V.; Gueguen, E.; Adrait, A.; Robert-Genthon, M.; Jeannot, K.; Panchev, P.; Elsen, S.; Fauvarque, M.-O.; Couté, Y.; Buchrieser, C.; Attrée, I. Genomic Erosion and Horizontal Gene Transfer Shape Functional Differences of the ExLA Toxin in Pseudomonas Spp. *Science* **2022**, 25(7), 104596. <https://doi.org/10.1126/science.add596>.
- (74) Jouhet, J.; Shimojima, M.; Awai, K.; Marechal, E. Editorial: Lipids in Cyanobacteria, Algae, and Plants - From Biology to Biotechnology. *Frontiers in Plant Science* **2022**, 5. <https://doi.org/10.3389/fpls.2021.834384>.
- (75) Journet, A.; Barette, C.; Aubry, L.; Soleilhac, E.; Fauvarque, M.-O. Identification of Chemicals Breaking the USP8 Interaction with Its Endocytic Substrate CHMP1B. *Stress Discovery* **2022**, 27(7), 395–404. <https://doi.org/10.1016/j.slasd.2022.08.003>.
- (76) Kehlenbeck, D.-M.; Traore, D. A.; Josts, I.; Sander, S.; Moulin, M.; Haertlein, M.; Prevost, S.; Forsyth, V. T.; Tidow, H. Cryo-EM Structure of MsbA in Saposin-Lipid Nanoparticles (Salipro) Provides Insights into Nucleotide Coordination. *The FEBS Journal* **2022**. <https://doi.org/10.1111/febs.16327>.
- (77) Kopf, A. H.; Lijding, O.; Elenbaas, B. O.; Koorengevel, M. C.; Dobruchowska, J. M.; van Walree, C. A.; Killian, J. A. Synthesis and Evaluation of a Library of Alternating Amphiphatic Copolymers to Solubilize and Study Membrane Proteins. *Biomacromolecules* **2022**, 23(3), 743–759. <https://doi.org/10.1021/acs.biomac.1c01166>.
- (78) Kučera, O.; Gaillard, J.; Guérin, C.; Utzschneider, C.; Théry, M.; Blanchoin, L. Actin Architecture Steers Microtubules in Active Cytoskeletal Composite. *Nano Letters* **2022**, 22(21), 8584–8591. <https://doi.org/10.1021/acs.nanolett.2c03117>.
- (79) Kučera, O.; Gaillard, J.; Guérin, C.; Théry, M.; Blanchoin, L. Actin-Microtubule Dynamic Composite Forms Responsive Active Matter with Memory. *Proceedings of the National Academy of Sciences* **2022**, 119(3), e2209522119. <https://doi.org/10.1073/pnas.2209522119>.
- (80) Lacroux, J.; Atteia, A.; Brugiére, S.; Couté, Y.; Vallon, O.; Steyer, J.-P.; Van Lis, R. Proteomics Unveil a Central Role for Peroxisomes in Butyrate Assimilation of the Heterotrophic Chlorophyte Alga Polytomella Sp. *Frontiers in Microbiology* **2022**, 13(1029828). <https://doi.org/10.3389/fmicb.2022.1029828>.
- (81) Lafaye, C.; Aumonier, S.; Torra, J.; Signor, L.; von Stetten, D.; Noirclerc-Savoye, M.; Shu, X.; Ruiz-González, R.; Gotthard, G.; Royant, A.; Nonell, S. Riboflavin-Binding Proteins for Singlet Oxygen Production. *Photochemical & Photobiological Sciences* **2022**, 1–11. <https://doi.org/10.1007/s43630-021-00156-1>.
- (82) Laurin, D.; Mercier, C.; Quansah, N.; Robert, J. S.; Usso, Y.; Schneider, D.; Hindré, T.; Schaack, B. Extracellular Vesicles from 50,000 Generation Clones of the Escherichia Coli Long-Term Evolution Experiment. *International Journal of Molecular Sciences* **2022**, 23(23), 14580. <https://doi.org/10.3390/ijms232314580>.
- (83) Le Moigne, D.; Guégan, N.; Salvaing, J. Lipid Droplets in Plants: More than a Simple Fat Storage. *Advances in Botanical Research* **2022**, 101, 191–223. <https://doi.org/10.1016/bs.abr.2021.07.004>.
- (84) Leisico, F.; Omeirí, J.; Le Narvor, C.; Beaudouin, J.; Hons, M.; Fenel, D.; Schoehn, G.; Couté, Y.; Bonnaffé, D.; Sadir, R.; Lortat-Jacob, H.; Wild, R. Structure of the Human Heparan Sulfate Polymerase Complex EXT1-EXT2. *Nature Communications* **2022**, 13(1), 1–11. <https://doi.org/10.1038/s41467-022-34882-6>.

- (85) Leterme, S.; Michaud, M. Non-Vesicular Glycerolipids Transport in Plant Cells. In *Lipids in Plants and Algae: From Fundamental Science to Industrial Applications*; Advances in Botanical Research; Elsevier, 2022; Vol. 101, pp 121–189.
- (86) Liu, B.; Chan, H.; Bauda, E.; Contreras-Martel, C.; Bellard, L.; Villard, A.-M.; Mas, C.; Neumann, E.; Fenel, D.; Favier, A.; Serrano, M.; Henriques, A. O.; Rodrigues, C. D.; Morlot, C. Structural Insights into Ring-Building Motif Domains Involved in Bacterial Sporulation. *Journal of structural biology* **2022**, *214*(1), 107813. <https://doi.org/10.1016/j.jsb.2021.107813>.
- (87) Lopes, J.; Tetreau, G.; Pounot, K.; El Khatib, M.; Colletier, J.-P. Socialization of Providencia Stuartii Enables Resistance to Environmental Insults. *Microorganisms* **2022**, *10*(5), 901. <https://doi.org/10.3390/microorganisms10050901>.
- (88) Lupette, J.; Tardif, M.; Brugière, S.; Couté, Y.; Salvaing, J.; Maréchal, E. Quantitative Proteomic Analyses Reveal the Impact of Nitrogen Starvation on the Proteome of the Model Diatom Phaeodactylum Tricornutum. *Proteomics* **2022**, *22*00155. <https://doi.org/10.1002/pmic.202200155>.
- (89) Maestre-Reyna, M.; Yang, C.-H.; Nango, E.; Huang, W.-C.; Ngurah Putu, E. P. G.; Wu, W.-J.; Wang, P.-H.; Franz-Badur, S.; Saft, M.; Emmerich, H.-J.; Wu, H.-Y.; Lee, C.-C.; Huang, K.-F.; Chang, Y.-K.; Liao, J.-H.; Weng, J.-H.; Gad, W.; Chang, C.-W.; Pang, A. H.; Sugahara, M.; Owada, S.; Hosokawa, Y.; Joti, Y.; Yamashita, A.; Tanaka, R.; Luo, F.; Tono, K.; Hsu, K.-C.; Kiontke, S.; Schapiro, I.; Spadaccini, R.; Royant, A.; Yamamoto, J.; Iwata, S.; Essen, L.-O.; Bessho, Y.; Tsai, M.-D. Serial Crystallography Captures Dynamic Control of Sequential Electron and Proton Transfer Events in a Flavoenzyme. *Nature Chemistry* **2022**, *1*-9. <https://doi.org/10.1038/s41557-022-00922-3>.
- (90) Manigrasso, J.; Chillón, I.; Genna, V.; Vidossich, P.; Somarowthu, S.; Pyle, A. M.; De Vivo, M.; Marcia, M. Author Correction: Visualizing Group II Intron Dynamics between the First and Second Steps of Splicing. *Nature Communications* **2022**, *13*(1), 1-1. <https://doi.org/10.1038/s41467-021-27699-2>.
- (91) Marcia, M. The Multiple Molecular Dimensions of Long Noncoding RNAs That Regulate Gene Expression and Tumorigenesis. *Current Opinion in Oncology* **2022**, *34*(2), 141-147. <https://doi.org/10.1097/CCO.0000000000000813>.
- (92) Marques, C.; Poças, J.; Gomes, C.; Faria-Ramos, I.; Reis, C. A.; Vivès, R. R.; Magalhães, A. Glycosyltransferases EXTL2 and EXTL3 Cellular Balance Dictates Heparan Sulfate Biosynthesis and Shapes Gastric Cancer Cell Motility and Invasion. *Journal of Biological Chemistry* **2022**, *298*(11). <https://doi.org/10.1016/j.jbc.2022.102546>.
- (93) Martínez-Hemández, J.; Parato, J.; Sharma, A.; Soleilhac, J.-M.; Qu, X.; Tein, E.; Sproul, A.; Andrieux, A.; Goldberg, Y.; Moutin, M.-J.; Bartolini, F.; Peris, L. Crosstalk between Acetylation and the Tyrosination/Detyrosination Cycle of α -Tubulin in Alzheimer's Disease. *Frontiers in Cell and Developmental Biology* **2022**, *10*. <https://doi.org/10.3389/fcell.2022.926914>.
- (94) Nguyen, H.; Made Kresna, I. D.; Böhringer, N.; Ruel, J.; Mora, E. de la; Kramer, J.-C.; Lewis, K.; Nicolet, Y.; Schäberle, T. F.; Yokoyama, K. Characterization of a Radical SAM Oxygenase for the Ether Crosslinking in Darobactin Biosynthesis. *Journal of the American Chemical Society* **2022**, *144*(41), 18876-18886.
- (95) Nguyen, T.-Q.; Nicolet, Y. Structure and Catalytic Mechanism of Radical SAM Methylases. *Life* **2022**, *12*(11), 1732. <https://doi.org/10.3390/life12111732>.
- (96) Nore, A.; Juarez-Martinez, A. B.; Clément, J.; Brun, C.; Diagouraga, B.; Laroussi, H.; Grey, C.; Bourbon, H. M.; Kadlec, J.; Robert, T.; de Massy, B. TOPOVIBL-REC114 Interaction Regulates Meiotic DNA Double-Strand Breaks. *Nature Communications* **2022**, *13*(1), 1-19. <https://doi.org/10.1038/s41467-022-34799-0>.
- (97) Nyonda, M. A.; Boyer, J.-B.; Belmudes, L.; Krishnan, A.; Pino, P.; Couté, Y.; Brochet, M.; Meinnel, T.; Soldati-Favre, D.; Giglione, C. N-Acetylation of Secreted Proteins Is Widespread in Apicomplexa and Independent of Acetyl-CoA ER-Transporter AT1. *Journal of cell science* **2022**. <https://doi.org/10.1242/jcs.259811>.
- (98) Nys, M.; Zarkadas, E.; Brams, M.; Mehregan, A.; Kambara, K.; Kool, J.; Casewell, N. R.; Bertrand, D.; Baenziger, J. E.; Nury, H.; Ulens, C. The Molecular Mechanism of Snake Short-Chain α -Neurotoxin Binding to Muscle-Type Nicotinic Acetylcholine Receptors. *Nature Communications* **2022**, *13*(1), 1-12. <https://doi.org/10.1038/s41467-022-32174-7>.
- (99) Peris, L.; Parato, J.; Qu, X.; Soleilhac, J. M.; Lanté, F.; Kumar, A.; Pero, M. E.; Martínez-Hernández, J.; Corrao, C.; Falivelli, G.; Payet, F.; Gory-Fauré, S.; Bosc, C.; Ramirez, M. B.; Sproul, A.; Brocard, J.; Di Cara, B.; Delagrange, P.; Buisson, A.; Goldberg, Y.; Moutin, M.-J.; Bartolini, F.; Andrieux, A. Tubulin Tyrosination Regulates Synaptic Function and Is Disrupted in Alzheimer's Disease. *Brain* **2022**, *145*(7), 2486-2506. <https://doi.org/10.1093/brain/awab436>.
- (100) Permiakova, O.; Burger, T. Sketched Stochastic Dictionary Learning for Large-Scale Data and Application to High-Throughput Mass Spectrometry. *Statistical Analysis and Data Mining: The ASA Data Science Journal* **2022**. <https://doi.org/10.1002/sam.11542>.
- (101) Pohl, C.; Effantin, G.; Kandiah, E.; Meier, S.; Zeng, G.; Streicher, W.; Segura, D. R.; Mygind, P. H.; Sandvang, D.; Nielsen, L. A.; Peters, G. H.; Schoehn, G.; Mueller-Dieckmann, C.; Noergaard, A.; Harris, P. PH-and Concentration-Dependent Supramolecular Assembly of a Fungal Defensin Plectasin Variant into Helical Non-Amyloid Fibrils. *Nature Communications* **2022**, *13*(1), 1-15. <https://doi.org/10.1038/s41467-022-30462-w>.
- (102) Pollastri, S.; Delaunay, C.; Thépaut, M.; Fieschi, F.; Bernardi, A. Glycomimetic Ligands Block the Interaction of SARS-CoV-2 Spike Protein with C-Type Lectin Co-Receptors. *Chemical Communications* **2022**, *58*(33), 5136-5139. <https://doi.org/10.1039/D2CC00121G>.
- (103) Ponomareva, S.; Joisten, H.; François, T.; Naud, C.; Morel, R.; Hou, Y.; Myers, T.; Joumard, I.; Dieny, B.; Carriere, M. Magnetic Particles for Triggering Insulin Release in INS-1E Cells Subjected to a Rotating Magnetic Field. *Nanoscale* **2022**, *14*(36), 13274-13283. <https://doi.org/10.1039/D2NR02009B>.
- (104) Redekop, P.; Sanz-Luque, E.; Yuan, Y.; Villain, G.; Petroutsos, D.; Grossman, A. R. Transcriptional Regulation of Photoprotection in Dark-to-Light Transition—More than Just a Matter of Excess Light Energy. *Science Advances* **2022**, *8*(22), eabn1832. <https://doi.org/10.1126/sciadv.abn1832>.
- (105) Rezaei-Gazik, M.; Vargas, A.; Amiri-Yekta, A.; Vitte, A.-L.; Akbari, A.; Barral, S.; Esmaeili, V.; Chuffart, F.; Sadighi-Gilani, M. A.; Couté, Y.; Eftekjari-Yazdi, P.; Khochbin, S.; Rousseaux, S.; Totonchi, M. Direct Visualization of Pre-Protamine 2 Detects Protamine Assembly Failures and Predicts ICSI Success. *Molecular Human Reproduction* **2022**, *28*(2), gaac004. <https://doi.org/10.1093/molehr/gaac004>.
- (106) Ricoch, A. E.; Martin-Laffon, J.; Rault, B.; Pallares, V. C.; Kuntz, M. Next Biotechnological Plants for Addressing Global Challenges: The Contribution

- of Transgenesis and New Breeding Techniques. *New Biotechnology* **2022**, *66*, 25–35.
- (107) Rivaux, C.; Akdas, T.; Yadav, R.; El-Dahshan, O.; Moodely, D.; Ling, W. L.; Aldakov, D.; Reiss, P. Continuous Flow Aqueous Synthesis of Highly Luminescent AgInS₂ and AgInS₂/ZnS Quantum Dots. *The Journal of Physical Chemistry C* **2022**.
- (108) Rodrigues, M. J.; Giri, N.; Royant, A.; Zhang, Y.; Bolton, R.; Evans, G.; Ealick, S. E.; Begley, T.; Tews, I. Trapping and Structural Characterisation of a Covalent Intermediate in Vitamin B₆ Biosynthesis Catalysed by the Pdx1 PLP Synthase. *RSC chemical biology* **2022**, *3*(2), 227–230.
- (109) Rodriguez-Heredia, M.; Saccon, F.; Wilson, S.; Finazzi, G.; Ruban, A. V.; Hanke, G. T. Protection of Photosystem I during Sudden Light Stress Depends on Ferredoxin: NADP (H) Reductase Abundance and Interactions. *Plant physiology* **2022**, *188*(2), 1028–1042. <https://doi.org/10.1093/plphys/kiab550>.
- (110) Ruedas, R.; Muthukumar, S. S.; Kieffer-Jaquino, S.; Gillet, F.-X.; Fenel, D.; Effantin, G.; Pfannschmidt, T.; Couté, Y.; Blanvillain, R.; Cobessi, D. Three-Dimensional Envelope and Subunit Interactions of the Plastid-Encoded RNA Polymerase from *Sinapis Alba*. *International Journal of Molecular Sciences* **2022**, *23*(17), 9922. <https://doi.org/10.3390/ijms23179922>.
- (111) Santos, T.; Lopes-Nunes, J.; Alexandre, D.; Miranda, A.; Figueiredo, J.; Silva, M. S.; Mergny, J.-L.; Cruz, C. Stabilization of a DNA Aptamer by Ligand Binding. *Biochimie* **2022**, *200*, 8–18. <https://doi.org/10.1016/j.biochi.2022.05.002>.
- (112) Santos, T.; Miranda, A.; Imbert, L.; Jardim, A.; Caneira, C. R.; Chu, V.; Conde, J. P.; Campello, M. P. C.; Paulo, A.; Salgado, G.; Cabrita, E. J.; Cruz, C. Pre-MiRNA-149 G-Quadruplex as a Molecular Agent to Capture Nucleolin. *European Journal of Pharmaceutical Sciences* **2022**, *169*, 106093. <https://doi.org/10.1016/j.ejps.2021.106093>.
- (113) Santos, T.; Miranda, A.; Imbert, L.; Monchaud, D.; Salgado, G. F.; Cabrita, E. J.; Cruz, C. Targeting a G-Quadruplex from Let-7e Pre-MiRNA with Small Molecules and Nucleolin. *Journal of Pharmaceutical and Biomedical Analysis* **2022**, *215*, 114757. <https://doi.org/10.1016/j.jpba.2022.114757>.
- (114) Sarasa-Buisan, C.; Emonot, E.; Martínez-Júlez, M.; Sevilla, E.; Velázquez-Campoy, A.; Crouzy, S.; Bes, M. T.; Michaud-Soret, I.; Fillat, M. F. Metal Binding and Oligomerization Properties of FurC (PerR) from *Anabaena* Sp. PCC7120: An Additional Layer of Regulation? *Metalomics* **2022**, *14*(10), mfac077. <https://doi.org/10.1093/mto/mfac077>.
- (115) Schaack, B.; Hindré, T.; Quansah, N.; Hannani, D.; Mercier, C.; Laurin, D. Microbiota-Derived Extracellular Vesicles Detected in Human Blood from Healthy Donors. *International Journal of Molecular Sciences* **2022**, *23*(22), 13787. <https://doi.org/10.3390/ijms232213787>.
- (116) Seck, A.; De Bonis, S.; Saint-Pierre, C.; Gasparutto, D.; Ravanat, J.-L.; Timmins, J. In Vitro Reconstitution of an Efficient Nucleotide Excision Repair System Using Mesophilic Enzymes from *Deinococcus Radiodurans*. *Communications biology* **2022**, *5*(1), 1–12. <https://doi.org/10.1038/s42003-022-03064-x>.
- (117) Sefkow-Werner, J.; Le Pennec, J.; Machillot, P.; Ndayishimiye, B.; Castro-Ramirez, E.; Lopes, J.; Licitra, C.; Wang, I.; Delon, A.; Picart, C.; Migliorini, E. Automated Fabrication of Streptavidin-Based Self-Assembled Materials for High-Content Analysis of Cellular Response to Growth Factors. *ACS Applied Materials & Interfaces* **2022**, *14*(29), 34113–34125. <https://doi.org/10.1021/acsami.2c08272>.
- (118) Seydoux, C.; Storti, M.; Giovagnetti, V.; Matuszyńska, A.; Guglielmino, E.; Zhao, X.; Giustini, C.; Pan, Y.; Blommaert, L.; Angulo, J.; Ruban, A. V.; Hu, H.; Bailleul, B.; Courtois, F.; Allorent, G.; Finazzi, G. Impaired Photoprotection in *Phaeodactylum Tricornutum* KEA3 Mutants Reveals the Proton Regulatory Circuit of Diatoms Light Acclimation. *New Phytologist* **2022**, *234*(2), 578–591. <https://doi.org/10.1111/nph.18003>.
- (119) Soulié, M.; Deletraz, A.; Wehbie, M.; Mahler, F.; Bouchemal, I.; Le Roy, A.; Keller, S.; Meister, A.; Pebay-Peyroula, E.; Breyton, C.; Ebel, C.; Durand, G. Zwitterionic Fluorinated Detergents: From Design to Membrane Protein Applications. *Biochimie* **2022**. <https://doi.org/10.1016/j.biochi.2022.11.003>.
- (120) Spittler, D.; Indorato, R.-L.; Erba, E. B.; Delaforge, E.; Signor, L.; Harris, S. J.; Garcia-Saez, I.; Palencia, A.; Gabel, F.; Blackledge, M.; Noirclerc-Savoye, M.; Petosa, C. Binding Stoichiometry and Structural Model of the HIV-1 Rev/Importin β Complex. *Life Science Alliance* **2022**, *5*(10). <https://doi.org/10.26508/lsa.202201431>.
- (121) Sulbaran, G.; Maisonnasse, P.; Amen, A.; Effantin, G.; Guilligay, D.; Dereuddre-Bosquet, N.; Burger, J. A.; Poniman, M.; Grobben, M.; Buisson, M.; Dylon, S. D.; Naninck, T.; Lemaitre, N.; Gros, W.; Galloüet, A.-S.; Marlin, R.; Bouillier, C.; Contreras, V.; Relouzat, F.; Fenel, D.; Thepaut, M.; Bally, I.; Thielen, N.; Fieschi, F.; Schoehn, G.; van der werf, S.; van Gils, M. J.; Sanders, R. W.; Poignard, P.; Le Grand, R.; Weissenhorn, W. Immunization with Synthetic SARS-CoV-2 S Glycoprotein Virus-like Particles Protects Macaques from Infection. *Cell Reports Medicine* **2022**, *3*(2), 100528. <https://doi.org/10.1016/j.xcrm.2022.100528>.
- (122) Swale, C.; Bellini, V.; Bowler, M. W.; Flore, N.; Brenier-Pinchart, M.-P.; Cannella, D.; Belmudes, L.; Mas, C.; Couté, Y.; Laurent, F.; Scherf, A.; Bougdour, A.; Hakimi, M.-A. Altiratinib Blocks Toxoplasma Gondii and *Plasmodium Falciparum* Development by Selectively Targeting a Spliceosome Kinase. *Science Translational Medicine* **2022**, *14*(656), eabn3231. <https://doi.org/10.1126/scitranslmed.abn3231>.
- (123) Tarbouriech, N.; Chenavier, F.; Kawasaki, J.; Bachiri, K.; Bourhis, J.-M.; Legrand, P.; Freslon, L. L.; Laurent, E. M.; Suberbielle, E.; Ruigrok, R. W.; Tomonaga, K.; Gonzalez-Dunia, D.; Horie, M.; Coyaud, E.; Crépin, T. Borna Disease Virus 1 Phosphoprotein Forms a Tetramer and Interacts with Host Factors Involved in DNA Double-Strand Break Repair and mRNA Processing. *Viruses* **2022**, *14*(11), 2358. <https://doi.org/10.3390/v14112358>.
- (124) ten Hoeve, A. L.; Braun, L.; Rodriguez, M. E.; Olivera, G. C.; Bougdour, A.; Belmudes, L.; Couté, Y.; Saeij, J. P.; Hakimi, M.-A.; Barragan, A. The Toxoplasma Effector GRA28 Promotes Parasite Dissemination by Inducing Dendritic Cell-like Migratory Properties in Infected Macrophages. *Cell Host & Microbe* **2022**, *30*(11), 1570–1588. <https://doi.org/10.1016/j.chom.2022.10.001>.
- (125) Törner, R.; Kupreichyk, T.; Gremer, L.; Debled, E. C.; Fenel, D.; Schemmert, S.; Gans, P.; Willbold, D.; Schoehn, G.; Hoyer, W.; Boisbouvier, J. Structural Basis for the Inhibition of IAPP Fibril Formation by the Co-Chaperon Prefoldin. *Nature communications* **2022**, *13*(1), 1–13. <https://doi.org/10.1038/s41467-022-30042-y>.
- (126) Torres, A.; Collin-Faure, V.; Diemer, H.; Moriscot, C.; Fenel, D.; Gallet, B.; Cianfranli, S.; Sergent, J.-A.; Rabilloud, T. Repeated Exposure of Macrophages to Synthetic Amorphous Silica Induces Adaptive Proteome Changes and a Moderate Cell Activation. *Nanomaterials* **2022**, *12*(9), 1424. <https://doi.org/10.3390/nano12091424>.

- (127) Tran, N. T.; Lecomte, E.; Saleun, S.; Namkung, S.; Robin, C.; Weber, K.; Devine, E.; Blouin, V.; Adjali, O.; Ayuso, E.; Gao, G.; Penaud-Budloo, M.; Tai, P. W. Human and Insect Cell-Produced Recombinant Adeno-Associated Viruses Show Differences in Genome Heterogeneity. *Human Gene Therapy* **2022**, *33*(7–8), 371–388. <https://doi.org/10.1089/hum.2022.050>.
- (128) van der Linden, P.; Engilberge, S.; Atta, M.; Carpentier, P. A Miniature Airlock System to Aid the Cryo-Cooling of Protein Crystals Grown under Anoxic Conditions. *Journal of Applied Crystallography* **2022**, *55*(5). <https://doi.org/10.1107/S1600576722007580>.
- (129) Van Driessche, A. E.; Ling, W. L.; Schoehn, G.; Sleutel, M. Nucleation of Glucose Isomerase Protein Crystals in a Nonclassical Disguise: The Role of Crystalline Precursors. *Proceedings of the National Academy of Sciences* **2022**, *119*(7), e2108674119. <https://doi.org/10.1073/pnas.2108674119>.
- (130) Vigetti, L.; Labouré, T.; Roumégous, C.; Cannella, D.; Touquet, B.; Mayer, C.; Couté, Y.; Fréjal, K.; Tardieu, I.; Renesto, P. The BCC7 Protein Contributes to the Toxoplasma Basal Pole by Interfacing between the MyoC Motor and the IMC Membrane Network. *International Journal of Molecular Sciences* **2022**, *23*(11), 5995.
- (131) Vilallongue, N.; Schaeffer, J.; Hesse, A.-M.; Delpech, C.; Blot, B.; Paccard, A.; Plissonnier, E.; Excoffier, B.; Couté, Y.; Belin, S.; Nawai, H. Guidance Landscapes Unveiled by Quantitative Proteomics to Control Reinnervation in Adult Visual System. *Nature Communications* **2022**, *13*(1), 1–20. <https://doi.org/10.1038/s41467-022-33799-4>.
- (132) Villalta, A.; Schmitt, A.; Estrozi, L. F.; Quemin, E. R.; Alempic, J.-M.; Lartigue, A.; Pražák, V.; Belmudes, L.; Vasishyan, D.; Colmant, A. M.; Honoré, F. A.; Couté, Y.; Grünewald, K.; Abergel, C. The Giant Mimivirus 1.2 Mb Genome Is Elegantly Organized into a 30-Nm Diameter Helical Protein Shield. *eLife* **2022**, *11*, e77607. <https://doi.org/10.7554/eLife.77607>.
- (133) Weerakkody, J. S.; El Kazzy, M.; Jacquier, E.; Elchinger, P.-H.; Mathey, R.; Ling, W. L.; Herrier, C.; Livache, T.; Buhot, A.; Hou, Y. Surfactant-like Peptide Self-Assembled into Hybrid Nanostructures for Electronic Nose Applications. *ACS nano* **2022**, *16*(3), 4444–4457. <https://doi.org/10.1021/acsnano.1c10734>.
- (134) Wulffele, J.; Thedie, D.; Glushonkov, O.; Bourgeois, D. MEos4b Photoconversion Efficiency Depends on Laser Illumination Conditions Used in PALM. *The Journal of Physical Chemistry Letters* **2022**, *13*, 5075–5080. <https://doi.org/10.1021/acs.jpclett.2c00933>.
- (135) Yamamoto, S.; Gaillard, J.; Vianay, B.; Guerin, C.; Orhant-Prioux, M.; Blanchoin, L.; Théry, M. Actin Network Architecture Can Ensure Robust Centering or Sensitive Decentering of the Centrosome. *The EMBO Journal* **2022**, *41*(20), e111631. <https://doi.org/10.15252/embj.2022111631>.
- (136) Yang, J.; Liu, J.; Pan, Y.; Maréchal, E.; Amato, A.; Liu, M.; Gong, Y.; Li, Y.; Hu, H. PDAT Regulates PE as Transient Carbon Sink Alternative to Triacylglycerol in Nannochloropsis. *Plant Physiology* **2022**. <https://doi.org/10.1093/plphys/kiac160>.
- (137) You, L.; Jouhet, J.; Maréchal, E.; Amato, A.; Hao, X.; Zhang, D.; Banaś, A.; Gong, Y. Acyl-CoA: Lysophosphatidylcholine Acyltransferase from the Unicellular Diatom Phaeodactylum Tricornutum (PtLPCAT1) Is Involved in Triacylglycerol and Galactoglycerolipid Synthesis and Enhances Eicosapentaenoic Acid Accumulation in Recombinant Oleaginous Yeast. *Plant biotechnology journal* **2022**. <https://doi.org/10.1111/pbi.13952>.
- (138) Zarkadas, E.; Pebay-Peyroula, E.; Thompson, M. J.; Schoehn, G.; Uchański, T.; Steyaert, J.; Chipot, C.; Dehez, F.; Baenziger, J. E.; Nury, H. Conformational Transitions and Ligand-Binding to a Muscle-Type Nicotinic Acetylcholine Receptor. *Neuron* **2022**, *110*(8), 1358–1370. <https://doi.org/10.1016/j.neuron.2022.01.013>.