

- (1) Bigo-Simon, A.; Estrozi, L. F.; Chaumont, A.; Schurhammer, R.; Schoehn, G.; Combet, J.; Schmutz, M.; Schaaf, P.; Jierry, L. 3D Cryo-Electron Microscopy Reveals the Structure of a 3-Fluorenylmethyloxycarbonyl Zipper Motif Ensuring the Self-Assembly of Tripeptide Nanofibers. *ACS NANO* **2024**, *18* (44), 30448–30462.
<https://doi.org/10.1021/acsnano.4c08043>
- (2) Kass, D.; Katz, S.; Oezgen, H.; Mebs, S.; Haumann, M.; Garcia-Serres, R.; Dau, H.; Hildebrandt, P.; Lohmiller, T.; Ray, K. A Bioinspired Nonheme FeIII-(O₂²⁻)-Cull Complex with an S T=1 Ground State. *J. Am. Chem. Soc.* **2024**, *146* (36), 24808–24817.
<https://doi.org/10.1021/jacs.4c04492>
- (3) Gravogl, L.; Kass, D.; Pyschny, O.; Heinemann, F. W.; Haumann, M.; Katz, S.; Hildebrandt, P.; Dau, H.; Swain, A.; Garcia-Serres, R.; Ray, K.; Munz, D.; Meyer, K. A Bis-Phenolate Carbene-Supported Bis- μ -Oxo Iron(IV/IV) Complex with a [FeIV(μ -O)₂FeIV] Diamond Core Derived from Dioxygen Activation. *J. Am. Chem. Soc.* **2024**, *146* (42), 28757–28769.
<https://doi.org/10.1021/jacs.4c07582>
- (4) Berezovska, A.; Buzzetti, P. H. M.; Nedellec, Y.; Gondran, C.; Giroud, F.; Gross, A. J.; Marinesco, S.; Cosnier, S. A Hollow Microcavity Enzymatic Fuel Cell for in Vivo Energy Harvesting. *CELL Rep. Phys. Sci.* **2024**, *5* (9). <https://doi.org/10.1016/j.xcrp.2024.102203>
- (5) Quintard, C.; Tubbs, E.; Jonsson, G.; Jiao, J.; Wang, J.; Werschler, N.; Laporte, C.; Pitaval, A.; Bah, T.-S.; Pomeranz, G.; Bissardon, C.; Kaal, J.; Leopoldi, A.; Long, D. A.; Blandin, P.; Achard, J.-L.; Battail, C.; Hagelkruys, A.; Navarro, F.; Fouillet, Y.; Penninger, J. M.; Gidrol, X. A Microfluidic Platform Integrating Functional Vascularized Organoids-on-Chip. *Nat. Commun.* **2024**, *15* (1). <https://doi.org/10.1038/s41467-024-45710-4>
- (6) Sun, L.; Gutierrez, J.; Goff, A. L.; Gatineau, D.; Jackson, T. A.; Gennari, M.; Duboc, C. A Non-Macrocyclic Thiolate-Based Cobalt Catalyst for Selective O₂ Reduction into H₂O. *CHEMCATCHEM* **2024**, *16* (16). <https://doi.org/10.1002/cctc.202400270>
- (7) Zhang, J.; Sun, J.; Chiu, C. H.; Landry, D.; Li, K.; Wen, J.; Mysore, K. S.; Fort, S.; Lefebvre, B.; Oldroyd, G. E. D.; Feng, F. A Receptor Required for Chitin Perception Facilitates Arbuscular Mycorrhizal Associations and Distinguishes Root Symbiosis from Immunity. *Curr. Biol.* **2024**, *34* (8), 1705–1717. <https://doi.org/10.1016/j.cub.2024.03.015>
- (8) Maragno, A. R. A.; Cwicklinski, G.; Matheron, M.; Vanoorenberghe, R.; Borgard, J.-M.; Morozan, A.; Fize, J.; Pellat, M.; Cavazza, C.; Artero, V.; Charton, S. A Scalable Integrated Solar Device for the Autonomous Production of Green Methane. *JOULE* **2024**, *8* (8).
<https://doi.org/10.1016/j.joule.2024.05.012>
- (9) Assani, N.; Delfau, L.; Smits, P.; Redon, S.; Kabri, Y.; Tomas-Mendivil, E.; Vanelle, P.; Martin, D.; Broggi, J. A Simple N-Heterocyclic Carbene for the Catalytic up-Conversion of Aldehydes into Stoichiometric Super Electron Donors. *Chem. Sci.* **2024**, *15* (36), 14699–14704. <https://doi.org/10.1039/d4sc04011b>
- (10) De Leiris, N.; Perret, P.; Lombardi, C.; Gozel, B.; Chierici, S.; Millet, P.; Debiossat, M.; Bacot, S.; Tournier, B. B.; Chames, P.; Lenormand, J.-L.; Ghezzi, C.; Fagret, D.; Moulin, M. A Single-Domain Antibody for the Detection of Pathological Tau Protein in the Early Stages of Oligomerization. *J. Transl. Med.* **2024**, *22* (1). <https://doi.org/10.1186/s12967-024-04987-1>
- (11) Botova, M.; Camacho-Zarco, A. R.; Tognetti, J.; Bessa, L. M.; Guseva, S.; Mikkola, E.; Salvi, N.; Maurin, D.; Herrmann, T.; Blackledge, M. A Specific Phosphorylation-Dependent Conformational Switch in SARS-CoV-2 Nucleocapsid Protein Inhibits RNA Binding. *Sci. Adv.* **2024**, *10* (31). <https://doi.org/10.1126/sciadv.aax2323>
- (12) Mukhopadhyay, U.; Levantovsky, S.; Carusone, T. M.; Gharbi, S.; Stein, F.; Behrends, C.; Bhogaraju, S. A Ubiquitin-Specific, Proximity-Based Labeling Approach for the Identification of Ubiquitin Ligase Substrates. *Sci. Adv.* **2024**, *10* (32).
<https://doi.org/10.1126/sciadv.adp3000>
- (13) Sheng, Y.; Chen, Z.; Cherrier, M.; V.; Martin, L.; Bui, T. T. T.; Li, W.; Lynham, S.; Nicolet, Y.; Ebrahimi, K. H. A Versatile Virus-Mimetic Engineering Approach for Concurrent Protein

- Nanocage Surface-Functionalization and Cargo Encapsulation. *SMALL* **2024**, 20 (31). <https://doi.org/10.1002/sml.202310913>
- (14) Zeaiter, N.; Belot, L.; Cunin, V.; Nahed, R. A.; Tokarska-Schlattner, M.; Le Gouellec, A.; Petosa, C.; Khochbin, S.; Schlattner, U. Acetyl-CoA Synthetase (ACSS2) Does Not Generate Butyryl- and Crotonyl-CoA. *Mol. Metab.* **2024**, 81. <https://doi.org/10.1016/j.molmet.2024.101903>
 - (15) Ezzedine, J. A.; Uwizeye, C.; Si Larbi, G.; Villain, G.; Louwagie, M.; Schilling, M.; Hagenmuller, P.; Gallet, B.; Stewart, A.; Petroutsos, D.; Devime, F.; Salze, P.; Liger, L.; Jouhet, J.; Dumont, M.; Ravanel, S.; Amato, A.; Valay, J.-G.; Jouneau, P.-H.; Falconet, D.; Marechal, E. Adaptive Traits of Cysts of the Snow Alga *Sanguina Nivaloides* Unveiled by 3D Subcellular Imaging. *Nat. Commun.* **2023**, 14 (1). <https://doi.org/10.1038/s41467-023-43030-7>
 - (16) Naudi-Fabra, S.; Elena-Real, C. A.; Vedel, I. M.; Tengo, M.; Motzny, K.; Jiang, P.-L.; Schmieder, P.; Liu, F.; Milles, S. An Extended Interaction Site Determines Binding between AP180 and AP2 in Clathrin Mediated Endocytosis. *Nat. Commun.* **2024**, 15 (1). <https://doi.org/10.1038/s41467-024-50212-4>
 - (17) Wang, H.; Gallet, B.; Moriscot, C.; Pezet, M.; Chatellard, C.; Kleman, J.-P.; Goettlinger, H.; Weissenhorn, W.; Boscheron, C. An Inducible ESCRT-III Inhibition Tool to Control HIV-1 Budding. *VIRUSES-BASEL* **2023**, 15 (12). <https://doi.org/10.3390/v15122289>
 - (18) Cooke, L.; Gristwood, K.; Adamson, K.; Sims, M. T.; Deary, M. E.; Bruce, D.; Antoniou, A. N.; Walden, H. R.; Knight, J. C.; Antoine-Brunet, T.; Joly, M.; Goyard, D.; Lanoe, P.-H.; Berthet, N.; Kozhevnikov, V. N. Annealing 1,2,4-Triazine to Iridium(III) Complexes Induces Luminogenic Behaviour in Bioorthogonal Reactions with Strained Alkynes. *DALTON Trans.* **2024**, 53 (37), 15501–15508. <https://doi.org/10.1039/d4dt01499e>
 - (19) Depery, L.; Bally, I.; Amen, A.; Nemoz, B.; Buisson, M.; Grossi, L.; Truffot, A.; Germi, R.; Guilligay, D.; Veloso, M.; Vilotitch, A.; Epaulard, O.; Morand, P.; Weissenhorn, W.; Poignard, P.; Lupo, J. Anti-SARS-CoV-2 Serology Based on Ancestral RBD Antigens Does Not Correlate with the Presence of Neutralizing Antibodies against Omicron Variants. *Microbiol. Spectr.* **2025**, 13 (1). <https://doi.org/10.1128/spectrum.01568-24>
 - (20) Vernhes, E.; Cherif, L. 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. Antigen Self-Anchoring onto Bacteriophage T5 Capsid-like Particles for Vaccine Design. *NPJ VACCINES* **2024**, 9 (1). <https://doi.org/10.1038/s41541-023-00798-5>
 - (21) Zafirov, D.; Giovinazzo, N.; Lecampion, C.; Field, B.; Ducassou, J. N.; Coute, Y.; Browning, K. S.; Robaglia, C.; Gallois, J.-L. Arabidopsis eIF4E1 Protects the Translational Machinery during TuMV Infection and Restricts Virus Accumulation. *PLOS Pathog.* **2023**, 19 (11). <https://doi.org/10.1371/journal.ppat.1011417>
 - (22) Harrabi, R.; Halbritter, T.; Alarab, S.; Chatterjee, S.; Wolska-Pietkiewicz, M.; Damodaran, K. K.; van Tol, J.; Lee, D.; Paul, S.; Hediger, S.; Sigurdsson, S. Th.; Mentink-Vigier, F.; De Paepe, G. AsymPol-TEKs as Efficient Polarizing Agents for MAS-DNP in Glass Matrices of Non-Aqueous Solvents. *Phys. Chem. Chem. Phys.* **2024**, 26 (6), 5669–5682. <https://doi.org/10.1039/d3cp04271e>
 - (23) Nieto-Fabregat, F.; Zhu, Q.; Vives, C.; Zhang, Y.; Marseglia, A.; Chiodo, F.; Thepaut, M.; Rai, D.; Kulkarni, S. S.; Di Lorenzo, F.; Molinaro, A.; Marchetti, R.; Fieschi, F.; Xiao, G.; Yu, B.; Silipo, A. Atomic-Level Dissection of DC-SIGN Recognition of *Bacteroides Vulgatus* LPS Epitopes. *JACS AU* **2024**, 4 (2), 697–712. <https://doi.org/10.1021/jacsau.3c00748>
 - (24) Badoni, S.; Terlecki, M.; Carret, S.; Poisson, J.-F.; Charpentier, T.; Okuno, H.; Wolska-Pietkiewicz, M.; Lee, D.; Lewinski, J.; De Paepe, G. Atomic-Level Structure of the Organic-Inorganic Interface of Colloidal ZnO Nanoplatelets from Dynamic Nuclear Polarization-Enhanced NMR. *J. Am. Chem. Soc.* **2024**, 146 (40), 27655–27667. <https://doi.org/10.1021/jacs.4c09113>

- (25) Ujfalusi-Pozsonyi, K.; Bodis, E.; Nyitrai, M.; Kengyel, A.; Telek, E.; Pecs, I.; Fekete, Z.; Kis-Bicskei, N. V.; Mas, C.; Moussaoui, D.; Pernot, P.; Tully, M. D.; Weik, M.; Schiro, G.; Kapetanaki, S. M.; Lukacs, A. ATP-Dependent Conformational Dynamics in a Photoactivated Adenylate Cyclase Revealed by Fluorescence Spectroscopy and Small-Angle X-Ray Scattering. *Commun. Biol.* **2024**, 7 (1). <https://doi.org/10.1038/s42003-024-05842-1>
- (26) Caburet, J.; Verdirosa, F.; Moretti, M.; Roulier, B.; Simoncelli, G.; Haudecoeur, R.; Ghazi, S.; Jamet, H.; Docquier, J.-D.; Boucherle, B.; Peuchmaur, M. Aurones and Derivatives as Promising New Delhi Metallo- β -Lactamase (NDM-1) Inhibitors. *Bioorg. Med. Chem.* **2024**, 97. <https://doi.org/10.1016/j.bmc.2023.117559>
- (27) Sheng, H.; Sun, J.; Rodriguez, O.; Hoar, B. B.; Zhang, W.; Xiang, D.; Tang, T.; Hazra, A.; Min, D. S.; Doyle, A. G.; Sigman, M. S.; Costentin, C.; Gu, Q.; Rodriguez-Lopez, J.; Liu, C. Autonomous Closed-Loop Mechanistic Investigation of Molecular Electrochemistry via Automation. *Nat. Commun.* **2024**, 15 (1). <https://doi.org/10.1038/s41467-024-47210-x>
- (28) Delrieu, L.; Hamaidia, S.; Montaut, E.; Garcia-Sandoval, A. C.; Teste, C.; Betton-Fraisse, P.; Bonnefoix, T.; Carras, S.; Gressin, R.; Lefebvre, C.; Govin, J.; Emadali, A. BET Inhibition Revealed Varying MYC Dependency Mechanisms Independent of Gene Alterations in Aggressive B-Cell Lymphomas. *Clin. EPIGENETICS* **2024**, 16 (1). <https://doi.org/10.1186/s13148-024-01788-7>
- (29) Salomon, S.; Schilling, M.; Albrieux, C.; Si Larbi, G.; Jouneau, P.-H.; Roy, S.; Falconet, D.; Michaud, M.; Jouhet, J. Betaine Lipids Overproduced in Seed Plants Are Not Imported into Plastid Membranes and Promote Endomembrane Expansion. *J. Exp. Bot.* **2024**, 76 (4), 980–996. <https://doi.org/10.1093/jxb/erae458>
- (30) Mangué, J.; Wehrung, I.; Pecaut, J.; Menage, S.; Orio, M.; Torelli, S. Bio-Inspired Copper Complexes with Cu₂S Cores: (Solvent) Effects on Oxygen Reduction Reactions. *DALTON Trans.* **2024**, 53 (37), 15576–15582. <https://doi.org/10.1039/d4dt01629g>
- (31) Collin-Faure, V.; Vitipon, M.; Diemer, H.; Cianferani, S.; Darrouzet, E.; Rabilloud, T. Biobased, Biodegradable but Not Bio-Neutral: About the Effects of Polylactic Acid Nanoparticles on Macrophages. *Environ. Sci.-NANO* **2024**, 11 (10), 4102–4116. <https://doi.org/10.1039/d4en00335g>
- (32) Marchena, M. H.; Lambert, E.; Bogdanovic, B.; Quadir, F.; Neri-Cruz, C. E.; Luo, J.; Nadal, C.; Migliorini, E.; Gautrot, J. E. BMP-Binding Polysulfonate Brushes to Control Growth Factor Presentation and Regulate Matrix Remodelling. *ACS Appl. Mater. INTERFACES* **2024**, 16 (31), 40455–40468. <https://doi.org/10.1021/acsami.4c05139>
- (33) Le Pennec, J.; Guibert, A.; Gurram, R.; Delon, A.; Vives, R. R.; Migliorini, E. BMP2 Binds Non-Specifically to PEG-Passivated Biomaterials and Induces pSMAD 1/5/9 Signalling. *Macromol. Biosci.* **2024**, 24 (11). <https://doi.org/10.1002/mabi.202400169>
- (34) Delfau, L.; Mauro, E.; Pecaut, J.; Martin, D.; Tomas-Mendivil, E. Boosting N-Heterocyclic Carbene Radical Organocatalysis with Nickel Chemistry: A Rational Mechanistic Study-Based Approach. *ACS Catal.* **2024**, 14 (9), 7149–7156. <https://doi.org/10.1021/acscatal.4c01253>
- (35) Bancet, A.; Frem, R.; Jeanneret, F.; Mularoni, A.; Bazelle, P.; Roelants, C.; Delcros, J.-G.; Guichou, J.-F.; Pillet, C.; Coste, I.; Renno, T.; Battail, C.; Cochet, C.; Lomberget, T.; Filhol, O.; Krimm, I. Cancer Selective Cell Death Induction by a Bivalent CK2 Inhibitor Targeting the ATP Site and the Allosteric α D Pocket. *SCIENCE* **2024**, 27 (2). <https://doi.org/10.1016/j.isci.2024.108903>
- (36) Beaumet, M.; Lazinski, L. M.; Maresca, M.; Haudecoeur, R. Catechol-Mimicking Transition-State Analogues as Non-Oxidizable Inhibitors of Tyrosinases. *Eur. J. Med. Chem.* **2023**, 259. <https://doi.org/10.1016/j.ejmech.2023.115672>
- (37) Beaulier, C.; Dannay, M.; Devime, F.; Galeone, A.; Baggio, C.; El Sakkout, N.; Raillon, C.; Courson, O.; Bourguignon, J.; Alban, C.; Ravel, S. Characterization of a Uranium-Tolerant Green Microalga of the Genus *Coelastrella* with High Potential for the

- Remediation of Metal-Polluted Waters. *Sci. TOTAL Environ.* **2024**, 908.
<https://doi.org/10.1016/j.scitotenv.2023.168195>
- (38) Shen, K.; Gennari, M.; Philouze, C.; Velic, A.; Demeshko, S.; Meyer, F.; Duboc, C. Chromium-Thiolate Complex Undergoing C-S Bond Cleavage. *Inorg. Chem.* **2024**, 63 (20), 9119–9128. <https://doi.org/10.1021/acs.inorgchem.4c00402>
- (39) Doyle, L.; Magherusan, A.; Xu, S.; Murphy, K.; Farquhar, E. R.; Molton, F.; Duboc, C.; Que, L.; McDonald, A. R. Class Ib Ribonucleotide Reductases: Activation of a Peroxido-MnII/MnIII to Generate a Reactive Oxo-MnII/MnIV Oxidant. *Inorg. Chem.* **2024**, 63 (4), 2194–2203. <https://doi.org/10.1021/acs.inorgchem.3c04163>
- (40) Dantu, S. C.; Khalil, M.; Bria, M.; Saint-Pierre, C.; Orio, M.; Gasparutto, D.; Sicoli, G. Cleaving DNA with DNA: Cooperative Tuning of Structure and Reactivity Driven by Copper Ions. *Adv. Sci.* **2024**, 11 (16). <https://doi.org/10.1002/advs.202306710>
- (41) Quintil, G.; Diebold, L.; Fadel, G.; Pecaut, J.; Philouze, C.; Clemancey, M.; Blondin, G.; Bjornsson, R.; Quintard, A.; Kochem, A. CO to Isonitrile Substitution in Iron Cyclopentadienone Complexes: A Class of Active Iron Catalysts for Borrowing Hydrogen Strategies. *ACS Catal.* **2024**, 14 (10), 7795–7805.
<https://doi.org/10.1021/acscatal.4c01506>
- (42) Anoud, M.; Delagoutte, E.; Helleu, Q.; Brion, A.; Duvernois-Berthet, E.; As, M.; Marques, X.; Lamribet, K.; Senamaud-Beaufort, C.; Jourden, L.; Adrait, A.; Heinrich, S.; Toutirais, G.; Hamlaoui, S.; Gropplero, G.; Giovannini, I.; Ponger, L.; Geze, M.; Blugeon, C.; Coute, Y.; Guidetti, R.; Rebecchi, L.; Giovannangeli, C.; De Cian, A.; Concordet, J.-P. Comparative Transcriptomics Reveal a Novel Tardigrade-Specific DNA-Binding Protein Induced in Response to Ionizing Radiation. *ELIFE* **2024**, 13.
<https://doi.org/10.7554/eLife.92621.3.sa1>; <https://doi.org/10.7554/eLife.92621.3.sa2>; <https://doi.org/10.7554/eLife.92621.3.sa3>; <https://doi.org/10.7554/eLife.92621.3.sa4>
- (43) Bessenay, A.; Bisio, H.; Belmudes, L.; Coute, Y.; Bertaux, L.; Claverie, J.-M.; Abergel, C.; Jeudy, S.; Legendre, M. Complex Transcriptional Regulations of a Hyperparasitic Quadripartite System in Giant Viruses Infecting Protists. *Nat. Commun.* **2024**, 15 (1).
<https://doi.org/10.1038/s41467-024-52906-1>
- (44) Machut, P.; Antonini, A. K.; Rivaux, C.; Gromova, M.; Kaur, H.; Ling, W. L.; Mugny, G.; Reiss, P. Continuous Flow Synthesis of PbS/CdS Quantum Dots Using Substituted Thioureas. *NANO Res.* **2024**, 17 (12, SI), 10677–10684. <https://doi.org/10.1007/s12274-024-7003-9>
- (45) Daveau, N.; Saint-Pierre, C.; Hou, Y.; Reiss, P.; Gasparutto, D.; Kheng, K. Controlled FRET Effect between AgInS₂ Quantum Dot and a Fluorophore Using DNA Strands. In *NANOPHOTONICS X*; Andrews, D., Bain, A., Ambrosio, A., Eds.; Proceedings of SPIE; SPIE, 2024; Vol. 12991. <https://doi.org/10.1117/12.3022126>
- (46) De Tovar, J.; Leblay, R.; Wang, Y.; Wojcik, L.; Thibon-Pourret, A.; Reglier, M.; Simaan, A. J.; Le Poul, N.; Belle, C. Copper-Oxygen Adducts: New Trends in Characterization and Properties towards C-H Activation. *Chem. Sci.* **2024**, 15 (27), 10308–10349.
<https://doi.org/10.1039/d4sc01762e>
- (47) Elsen, S.; Simon, V.; Attree, I. Cross-Regulation and Cross-Talk of Conserved and Accessory Two-Component Regulatory Systems Orchestrate Pseudomonas Copper Resistance. *PLOS Genet.* **2024**, 20 (6). <https://doi.org/10.1371/journal.pgen.1011325>
- (48) Kefauver, J. M.; Hakala, M.; Zou, L.; Alba, J.; Espadas, J.; Tettamanti, M. G.; Gajic, J.; Gabus, C.; Campomanes, P.; Estrozi, L. F.; Sen, N. E.; Vanni, S.; Roux, A.; Desfosses, A.; Loewith, R. Cryo-EM Architecture of a near-Native Stretch-Sensitive Membrane Microdomain. *NATURE* **2024**, 632 (8024). <https://doi.org/10.1038/s41586-024-07720-6>
- (49) Chenavier, F.; Estrozi, L. F.; Teulon, J.-M.; Zarkadas, E.; Freslon, L.-L.; Pellequer, J.-L.; Ruigrok, R. W. H.; Schoehn, G.; Ballandras-Colas, A.; Crepin, T. Cryo-EM Structure of Influenza Helical Nucleocapsid Reveals NP-NP and NP-RNA Interactions as a Model for the Genome Encapsidation. *Sci. Adv.* **2023**, 9 (50). <https://doi.org/10.1126/sciadv.adj9974>

- (50) Schaeffer, J.; Vilallongue, N.; Decourt, C.; Blot, B.; El Bakdouri, N.; Plissonnier, E.; Excoffier, B.; Paccard, A.; Diaz, J.-J.; Humbert, S.; Catez, F.; Saudou, F.; Nawabi, H.; Belin, S. Customization of the Translational Complex Regulates mRNA-Specific Translation to Control CNS Regeneration. *NEURON* **2023**, *111* (18), 2881–2898. <https://doi.org/10.1016/j.neuron.2023.06.005>
- (51) Costentin, C. Cyclic Voltammetry to Study Dynamics of Ion Insertion in Porous Materials. *Adv. ENERGY Sustain. Res.* **2024**, *5* (5). <https://doi.org/10.1002/aesr.202300242>
- (52) Casanova, A. G.; Roth, G. S.; Hausmann, S.; Lu, X.; Bischoff, L. J. M.; Froeliger, E. M.; Belmudes, L.; Bourova-Flin, E.; Flores, N. M.; Benitez, A. M.; Chasan, T.; Caporicci, M.; Vayr, J.; Blanchet, S.; Ielasi, F.; Rousseaux, S.; Hainaut, P.; Gozani, O.; Le Romancer, M.; Coute, Y.; Palencia, A.; Mazur, P. K.; Reynoird, N. Cytoskeleton Remodeling Induced by SMYD2 Methyltransferase Drives Breast Cancer Metastasis. *CELL Discov.* **2024**, *10* (1). <https://doi.org/10.1038/s41421-023-00644-x>
- (53) Douki, T.; Millot, O.; Buhot, A. Data Processing for Predicting DNA Damaging Properties of Complex UV Sources. *CHEMPHYSICHEM* **2024**, *25* (20). <https://doi.org/10.1002/cphc.202400549>
- (54) Pastor, F.; Charles, E.; Belmudes, L.; Chabrolles, H.; Cescato, M.; Rivoire, M.; Burger, T.; Passot, G.; Durantel, D.; Lucifora, J.; Coute, Y.; Salvetti, A. Deciphering the Phospho-Signature Induced by Hepatitis B Virus in Primary Human Hepatocytes. *Front. Microbiol.* **2024**, *15*. <https://doi.org/10.3389/fmicb.2024.1415449>
- (55) Lazinski, L. M.; Beaumet, M.; Roulier, B.; Gay, R.; Royal, G.; Maresca, M.; Haudecoeur, R. Design and Synthesis of 4-Amino-2',4'-Dihydroxyindanone Derivatives as Potent Inhibitors of Tyrosinase and Melanin Biosynthesis in Human Melanoma Cells. *Eur. J. Med. Chem.* **2024**, *266*. <https://doi.org/10.1016/j.ejmech.2024.116165>
- (56) Cwicklinski, G.; Miras, R.; Perard, J.; Rinaldi, C.; Darrouzet, E.; Cavazza, C. Development of a CO₂-Biomethanation Reactor for Producing Methane from Green H₂. *Sustain. ENERGY FUELS* **2024**, *8* (5), 1068–1076. <https://doi.org/10.1039/d3se01550e>
- (57) Eymery, M. C.; Nguyen, K.-A.; Basu, S.; Hausmann, J.; Tran-Nguyen, V.-K.; Seidel, H. P.; Gutierrez, L.; Boumendjel, A.; McCarthy, A. A. Discovery of Potent Chromone-Based Autotaxin Inhibitors Inspired by Cannabinoids. *Eur. J. Med. Chem.* **2024**, *263*. <https://doi.org/10.1016/j.ejmech.2023.115944>
- (58) Trouve, J.; Zapun, A.; Bellard, L.; Juillot, D.; Pelletier, A.; Freton, C.; Baudoin, M.; Carballido-Lopez, R.; Campo, N.; Wong, Y.-S.; Grangeasse, C.; Morlot, C. DivIVA Controls the Dynamics of Septum Splitting and Cell Elongation in *Streptococcus Pneumoniae*. *MBIO* **2024**, *15* (10). <https://doi.org/10.1128/mbio.01311-24>
- (59) Malikidogo, K. P.; Charnay, T.; Ndiaye, D.; Choi, J.-H.; Bridou, L.; Chartier, B.; Erbek, S.; Micouin, G.; Banyasz, A.; Maury, O.; Martel-Frchet, V.; Grichine, A.; Seneque, O. Efficient Cytosolic Delivery of Luminescent Lanthanide Bioprobes in Live Cells for Two-Photon Microscopy. *Chem. Sci.* **2024**, *15* (25), 9694–9702. <https://doi.org/10.1039/d4sc00896k>
- (60) Yoruk, E.; Lecourt, C.; Housset, D.; Izumi, Y.; Ling, W. L.; Kodjikian, S.; Tretyakov, E.; Inoue, K.; Maryunina, K.; Desroches, C.; Klein, H.; Luneau, D. Electron Diffraction Unveils the 2D Metal-Radical Framework of Two Molecule-Based Magnets. *Inorg. Chem. Front.* **2024**, *12* (1), 328–341. <https://doi.org/10.1039/d4qi02257b>
- (61) Giraud, A.; Imbert, L.; Favier, A.; Henot, F.; Duffieux, F.; Samson, C.; Frances, O.; Crublet, E.; Boissbouvier, J. Enabling Site-Specific NMR Investigations of Therapeutic Fab Using a Cell-Free Based Isotopic Labeling Approach: Application to Anti-LAMP1 Fab. *J. Biomol. NMR* **2024**, *78* (2), 73–86. <https://doi.org/10.1007/s10858-023-00433-4>
- (62) Nono-Tagne, S.; Navon, Y.; Ogawa, Y.; Carre, B.; Otsuka, I. Enantioselective Membranes Prepared by Electrospinning of Cellulose Tris(3,5-Dimethylphenyl Carbamate) Having Various Degrees of Polymerization: Effect of the DP on the Morphology. *CELLULOSE* **2024**, *31* (5), 2765–2782. <https://doi.org/10.1007/s10570-023-05644-4>

- (63) Camara, F.; Aguirre-Araque, J. S.; Fortage, J.; Collomb, M.-N. Enhancing the Stability of Photocatalytic Systems for Hydrogen Evolution in Water by Using a Tris-Phenyl-Phenanthroline Sulfonate Ruthenium Photosensitizer. *Sustain. ENERGY FUELS* **2024**, 8 (7), 1457–1472. <https://doi.org/10.1039/d3se01556d>
- (64) Beato, A.; Haudecoeur, R.; Boucherle, B.; Peuchmaur, M. Expanding Chemical Frontiers: Approaches for Generating Diverse and Bioactive Natural Product-Like Compounds Libraries from Extracts. *Chem.-Eur. J.* **2024**, 30 (26). <https://doi.org/10.1002/chem.202304166>
- (65) Dussouchaud, M.; Barras, F.; de Choudens, S. O. Fe-S Biogenesis by SMS and SUF Pathways: A Focus on the Assembly Step. *Biochim. Biophys. ACTA-Mol. CELL Res.* **2024**, 1871 (7). <https://doi.org/10.1016/j.bbamcr.2024.119772>
- (66) Colin, A.; Orhant-Prioux, M.; Guerin, C.; Savinov, M.; Cao, W.; Vianay, B.; Scarfone, I.; Roux, A.; De La Cruz, E. M.; Mogilner, A.; Thery, M.; Blanchoin, L. Friction Patterns Guide Actin Network Contraction. *Proc. Natl. Acad. Sci. U. S. A.* **2023**, 120 (39). <https://doi.org/10.1073/pnas.2300416120>
- (67) Mueller-Dieckmann, C.; Grinzato, A.; Effantin, G.; Fenel, D.; Flot, D.; Schoehn, G.; Leonard, G.; Kandiah, E. From Solution to Structure: Empowering Inclusive Cryo-EM with a Pre-Characterization Pipeline for Biological Samples. *J. Appl. Crystallogr.* **2024**, 57 (2), 602–605. <https://doi.org/10.1107/S1600576724001717>
- (68) Burger, T. Fudging the Volcano-Plot without Dredging the Data. *Nat. Commun.* **2024**, 15 (1). <https://doi.org/10.1038/s41467-024-45834-7>
- (69) Alempic, J.-M.; Bisio, H.; Villalta, A.; Santini, S.; Lartigue, A.; Schmitt, A.; Bugnot, C.; Notaro, A.; Belmudes, L.; Adrait, A.; Poirot, O.; Ptchelkine, D.; De Castro, C.; Coute, Y.; Abergel, C. Functional Redundancy Revealed by the Deletion of the Mimivirus GMC-Oxidoreductase Genes. *MICROLIFE* **2024**, 5. <https://doi.org/10.1093/femsm/luqae006>
- (70) Morishita, Y.; Ma, S.; De La Mora, E.; Li, H.; Chen, H.; Ji, X.; Usclat, A.; Amara, P.; Sugiyama, R.; Tooh, Y. W.; Gunawan, G.; Perard, J.; Nicolet, Y.; Zhang, Q.; Morinaka, B. I. Fused Radical SAM and αKG-HExxH Domain Proteins Contain a Distinct Structural Fold and Catalyse Cyclophane Formation and β-Hydroxylation. *Nat. Chem.* **2024**, 16 (11). <https://doi.org/10.1038/s41557-024-01596-9>
- (71) Hamrock, F. J.; Ryan, D.; Shaibah, A.; Ershova, A. S.; Mogre, A.; Sulimani, M. M.; Ben Taarit, S.; Reichardt, S.; Hokamp, K.; Westermann, A. J.; Kroger, C. Global Analysis of the RNA-RNA Interactome in *Acinetobacter Baumannii* AB5075 Uncovers a Small Regulatory RNA Repressing the Virulence-Related Outer Membrane Protein CarO. *NUCLEIC ACIDS Res.* **2024**, 52 (18), 11283–11300. <https://doi.org/10.1093/nar/gkae668>
- (72) Le Pennec, J.; Makshakova, O.; Nevala, P.; Fouladkar, F.; Gout, E.; Machillot, P.; Friedel-Arboleas, M.; Picart, C.; Perez, S.; Vortkamp, A.; Vives, R. R.; Migliorini, E. Glycosaminoglycans Exhibit Distinct Interactions and Signaling with BMP2 According to Their Nature and Localization. *Carbohydr. Polym.* **2024**, 341. <https://doi.org/10.1016/j.carbpol.2024.122294>
- (73) Terral, O.; Audic, G.; Claudel, A.; Magnat, J.; Dupont, A.; Moreau, C. J.; Delacour, C. Graphene Field-Effect Transistors for Sensing Ion-Channel Coupled Receptors: Toward Biohybrid Nanoelectronics for Chemical Detection. *Adv. Electron. Mater.* **2024**, 10 (10). <https://doi.org/10.1002/aelm.202300872>
- (74) Al Tabosh, T.; Al Tarrass, M.; Tourvieille, L.; Guilhem, A.; Dupuis-Girod, S.; Bailly, S. Hereditary Hemorrhagic Telangiectasia: From Signaling Insights to Therapeutic Advances. *J. Clin. Invest.* **2024**, 134 (4). <https://doi.org/10.1172/JCI176379>
- (75) Zahorska, E.; Denig, L. M.; Lienenklaus, S.; Kuhaudomlarp, S.; Tschernig, T.; Lipp, P.; Munder, A.; Gillon, E.; Minervini, S.; Verkhova, V.; Imbert, A.; Wagner, S.; Titz, A. High-Affinity Lectin Ligands Enable the Detection of Pathogenic *Pseudomonas Aeruginosa* Biofilms: Implications for Diagnostics and Therapy. *JACS AU* **2024**, 4 (12), 4715–4728. <https://doi.org/10.1021/jacsau.4c00670>

- (76) Boissieras, J.; Bonnet, H.; Susanto, M. F.; Gomez, D.; Defrancq, E.; Granzhan, A.; Dejeu, J. iMab Antibody Binds Single-Stranded Cytosine-Rich Sequences and Unfolds DNA i-Motifs. *NUCLEIC ACIDS Res.* **2024**, 52 (14), 8052–8062.
<https://doi.org/10.1093/nar/gkae531>
- (77) Muller, W.; Sroka, W.; Schweins, R.; Noecker, B.; Poon, J.-F.; Huber, K. Impact of Additive Hydrophilicity on Mixed Dye-Nonionic Surfactant Micelles: Micelle Morphology and Dye Localization. *LANGMUIR* **2024**, 40 (17), 8872–8885.
<https://doi.org/10.1021/acs.langmuir.4c00012>
- (78) Al Tabosh, T.; Liu, H.; Koca, D.; Al Tarrass, M.; Tu, L.; Giraud, S.; Delagrangé, L.; Beaudoin, M.; Riviere, S.; Grobost, V.; Rondeau-Lutz, M.; Dupuis, O.; Ricard, N.; Tillet, E.; Machillot, P.; Salomon, A.; Picart, C.; Battail, C.; Dupuis-Girod, S.; Guignabert, C.; Desroches-Castan, A.; Bailly, S. Impact of Heterozygous ALK1 Mutations on the Transcriptomic Response to BMP9 and BMP10 in Endothelial Cells from Hereditary Hemorrhagic Telangiectasia and Pulmonary Arterial Hypertension Donors. *ANGIOGENESIS* **2024**, 27 (2), 211–227. <https://doi.org/10.1007/s10456-023-09902-8>
- (79) Haake, M.; Aldakov, D.; Perard, J.; Veronesi, G.; Tapia, A. A.; Reuillard, B.; Artero, V. Impact of the Surface Microenvironment on the Redox Properties of a Co-Based Molecular Cathode for Selective Aqueous Electrochemical CO₂-to-CO Reduction. *J. Am. Chem. Soc.* **2024**, 146 (22), 15345–15355. <https://doi.org/10.1021/jacs.4c03089>
- (80) Chen, B.; Fragal, E. H.; Faudry, E.; Halila, S. In Situ Growth of Silver Nanoparticles into Reducing-End Carbohydrate-Based Supramolecular Hydrogels for Antimicrobial Applications. *ACS Appl. Mater. INTERFACES* **2024**, 16 (51), 70818–70827.
<https://doi.org/10.1021/acsami.4c17526>
- (81) Antunes, A. V.; Shahinas, M.; Swale, C.; Farhat, D. C.; Ramakrishnan, C.; Bruley, C.; Cannella, D.; Robert, M. G.; Corrao, C.; Coute, Y.; Hehl, A. B.; Bougdour, A.; Coppens, I.; Hakimi, M.-A. In Vitro Production of Cat-Restricted Toxoplasma Pre-Sexual Stages. *NATURE* **2024**, 625 (7994), 366–376. <https://doi.org/10.1038/s41586-023-06821-y>
- (82) Chabaud, B.; Bonnet, H.; Lartia, R.; Van Der Heyden, A.; Auzely-Velty, R.; Boturyn, D.; Coche-Guerente, L.; Dubacheva, G. V. Influence of Surface Chemistry on Host/Guest Interactions: A Model Study on Redox-Sensitive β -Cyclodextrin/Ferrocene Complexes. *LANGMUIR* **2024**, 40 (9), 4646–4660. <https://doi.org/10.1021/acs.langmuir.3c03279>
- (83) Chenavier, F.; Zarkadas, E.; Freslon, L.-L.; Stelfox, A. J.; Schoehn, G.; Ruigrok, R. W. H.; Ballandras-Colas, A.; Crepin, T. Influenza A Virus Antiparallel Helical Nucleocapsid-like Pseudo-Atomic Structure. *NUCLEIC ACIDS Res.* **2024**, 53 (3).
<https://doi.org/10.1093/nar/gkae1211>
- (84) De Tovar, J.; Philouze, C.; Thibon-Pourret, A.; Belle, C. Insights into Non-Covalent Interactions in Dicopper(I,I) Complexes Bearing a Naphthyridine Scaffold: Anion-Dictated Electrochemistry. *Chem. Commun.* **2024**, 60 (16), 2228–2231.
<https://doi.org/10.1039/d3cc06264c>
- (85) Tuyen Phung, B.; Medini, A.; Maldivi, P.; Poisson, J.-F.; Bessieres, B.; Darses, B. Intramolecular Buchner Reaction: Experimental and Theoretical Comparison of the Effect of the Carbene Substituent on the Chemoselectivity. *Adv. Synth. Catal.* **2024**, 366 (20, SI), 4211–4218. <https://doi.org/10.1002/adsc.202400527>
- (86) Morin, C.; Baudin-Baillieu, A.; Van Long, F. N.; Isaac, C.; Bidou, L.; Arbes, H.; Francois, P.; Pommier, R. M.; Adrait, A.; Saku, A.; Gran, S.; Machkouri, C.; Vanbelle, C.; Morichon, R.; Boissan, M.; Catez, F.; Ferrari, A.; Morel, A.-P.; Coute, Y.; Chat, S.; Giudice, E.; Gillet, R.; Puisieux, A.; Moyret-balle, C.; Diaz, J.-J.; Namy, O.; Marcel, V. Intricate Ribosome Composition and Translational Reprogramming in Epithelial-Mesenchymal Transition. *Proc. Natl. Acad. Sci. U. S. A.* **2024**, 121 (50). <https://doi.org/10.1073/pnas.2408114121>
- (87) Kunert, R.; Martelino, D.; Mahato, S.; Hein, N. M.; Pulfer, J.; Philouze, C.; Jarjayes, O.; Thomas, F.; Storr, T. Investigating the Formation of Metal Nitride Complexes Employing a

- Tetradentate Bis-Carbene Bis-Phenolate Ligand. *DALTON Trans.* **2025**, 54 (2), 616–630. <https://doi.org/10.1039/d4dt01765j>
- (88) Arjunan, S.; Sims, J. M.; Duboc, C.; Maldivi, P.; Milet, A. Investigating the Interplay between Charge Transfer and CO₂ Insertion in the Adsorption of a NiFe Catalyst for CO₂ Electroreduction on a Graphite Support through DFT Computational Approaches. *J. Comput. Chem.* **2024**, 45 (19), 1690–1696. <https://doi.org/10.1002/jcc.27355>
- (89) Russo, D.; Di Venere, A.; Wurm, F. R.; Moulin, M.; Hartlein, M.; Garvey, C. J.; Teixeira, J. Investigation of the Structure of Protein-Polymer Conjugates in Solution Reveals the Impact of Protein Deuteration and the Size of the Polymer on Its Thermal Stability. *PROTEIN Sci.* **2024**, 33 (6). <https://doi.org/10.1002/pro.5032>
- (90) Alexandridis, A.; Rancon, T.; Halliday, A.; Kochem, A.; Quintard, A. Iron- and Organo-Catalyzed Borrowing Hydrogen for the Stereoselective Construction of Tetrahydropyrans. *Org. Lett.* **2024**, 26 (27), 5788–5793. <https://doi.org/10.1021/acs.orglett.4c01969>
- (91) Khan, A.; Morozan, A.; Johnson, H.; Artero, V.; Zitolo, A. Iron-Molybdenum Sulfide Electrocatalysts for the Hydrogen Evolution Reaction: An Operando XAS Study. *ELECTROCHIMICA ACTA* **2025**, 512. <https://doi.org/10.1016/j.electacta.2024.145418>
- (92) Chartier, C.; Deeba, R.; Collard, A.; Chardon-Noblat, S.; Costentin, C. Iron(II) Tetraphenylporphyrin Is an Active Catalyst in Reductive Deoxygenation When Switching from CO₂ to Isoelectronic N₂O. *ACS Catal.* **2024**, 14 (19), 14509–14516. <https://doi.org/10.1021/acscatal.4c05259>
- (93) Al Tarrass, M.; Belmudes, L.; Koca, D.; Azemard, V.; Liu, H.; Al Tabosh, T.; Ciais, D.; Desroches-Castan, A.; Battail, C.; Coute, Y.; Bouvard, C.; Bailly, S. Large-Scale Phosphoproteomics Reveals Activation of the MAPK/GADD45β/P38 Axis and Cell Cycle Inhibition in Response to BMP9 and BMP10 Stimulation in Endothelial Cells. *CELL Commun. Signal.* **2024**, 22 (1). <https://doi.org/10.1186/s12964-024-01486-0>
- (94) Labidi, R. J.; Faivre, B.; Carpentier, P.; Perard, J.; Gotico, P.; Li, Y.; Atta, M.; Fontecave, M. Light-Activated Artificial CO₂-Reductase: Structure and Activity. *J. Am. Chem. Soc.* **2024**, 146 (41), 28296–28305. <https://doi.org/10.1021/jacs.4c08927>
- (95) Vallet, A.; Ayala, I.; Perrone, B.; Hassan, A.; Simorre, J.-P.; Bougault, C.; Schanda, P. MAS NMR Experiments of Corynebacterial Cell Walls: Complementary 1 H- and CPMAS CryoProbe-Enhanced 13 C-Detected Experiments. *J. Magn. Reson.* **2024**, 364. <https://doi.org/10.1016/j.jmr.2024.107708>
- (96) Willery, M.; Julliard, P.-G.; Molton, F.; Thomas, F.; Fortage, J.; Costentin, C.; Collomb, M.-N. Mechanism of Electrochemical Proton Reduction Catalyzed by a Cobalt Tetraaza Schiff Base Macrocyclic Complex: Ligand Protonation and/or Influence of the Chloro Ligand. *ACS Catal.* **2024**, 14 (15), 11352–11365. <https://doi.org/10.1021/acscatal.4c03061>
- (97) Wang, G.; Jarjays, O.; Moreau, Y.; Thomas, F. Mechanistic Insight on the Aerobic Oxidation of Alcohols by Trivalent Copper from DFT Calculations. *Eur. J. Inorg. Chem.* **2024**, 27 (20). <https://doi.org/10.1002/ejic.202400091>
- (98) Pellegrini, E.; Juyoux, P.; von Velsen, J.; Baxter, N. J.; Dannatt, H. R. W.; Jin, Y.; Cliff, M. J.; Waltho, J. P.; Bowler, M. W. Metal Fluorides-Multi-Functional Tools for the Study of Phosphoryl Transfer Enzymes, a Practical Guide. *STRUCTURE* **2024**, 32 (10), 1834+. <https://doi.org/10.1016/j.str.2024.07.007>
- (99) Fortin, T.; Reynaud, A.; Jeudy, S.; Lai, S.-H.; Cumaku, V.; Abergel, C.; Hentz, S.; Masselon, C. Modeling Nanoelectromechanical Resonator Signals for Experimental Mass Measurements: A Total Variation Formulation. *IEEE ACCESS* **2024**, 12, 187919–187946. <https://doi.org/10.1109/ACCESS.2024.3506155>
- (100) Bagnall, A. J.; Haake, M.; Grau, S.; Straistari, T.; Koepf, M.; Moghaddam, N. J.; Gimbert-Surinach, C.; Benet-Buchholz, J.; Llobet, A.; Chavarot-Kerlidou, M.; Reuillard, B.; Artero, V. Molecular Engineering of Electrocatalytic Nanomaterials for Hydrogen Evolution: The Impact of Structural and Electronic Modifications of Anchoring Linkers on

- Electrocatalysis. *ACS Catal.* **2024**, *14* (8), 5630–5638.
<https://doi.org/10.1021/acscatal.4c00336>
- (101) Nieto-Fabregat, F.; Marseglia, A.; Thepaut, M.; Kleman, J.-P.; Abbas, M.; Roy, A. L.; Ebel, C.; Maalej, M.; Simorre, J.-P.; Laguri, C.; Molinaro, A.; Silipo, A.; Fieschi, F.; Marchetti, R. Molecular Recognition of Escherichia Coli R1-Type Core Lipooligosaccharide by DC-SIGN. *SCIENCE* **2024**, *27* (2). <https://doi.org/10.1016/j.isci.2024.108792>
- (102) Razew, A.; Heraïl, Q.; Miyachiro, M.; Anoyatis-Pele, C.; Bougault, C.; Dessen, A.; Arthur, M.; Simorre, J.-P. Monitoring Drug-Protein Interactions in the Bacterial Periplasm by Solution Nuclear Magnetic Resonance Spectroscopy. *J. Am. Chem. Soc.* **2024**, *146* (13), 9252–9260. <https://doi.org/10.1021/jacs.4c00604>
- (103) Veronesi, G.; Perard, J.; Clemancey, M.; Gerez, C.; Duverger, Y.; Kieffer, I.; Barras, F.; Gambarelli, S.; Blondin, G.; de Choudens, S. O. Multimodal Spectroscopic Analysis of the Fe-S Clusters of the as-Isolated Escherichia Coli SufBC2D Complex. *Inorg. Chem.* **2024**, *63* (19), 8730–8738. <https://doi.org/10.1021/acs.inorgchem.4c00304>
- (104) Whitehead, A. K.; Wang, Z.; Boustany, R.-J.; Vives, R. R.; Lazartigues, E.; Liu, J.; Siggins, R. W.; Yue, X. Myeloid Deficiency of Heparan Sulfate 6-O-Endosulfatases Impairs Bone Marrow Hematopoiesis. *MATRIX Biol.* **2024**, *134*, 107–118.
<https://doi.org/10.1016/j.matbio.2024.10.002>
- (105) Fulbert, C. A.; Chaput, F.; Stelse-Masson, S.; Henry, M.; Chovelon, B.; Bohic, S.; Brueckner, D.; Garrevoet, J.; Moriscot, C.; Gallet, B.; Vollaïre, J.; Nicoud, O.; Lerouge, F.; Denis-Quanquin, S.; Jaurand, X.; Jacquet, T.; Nomezine, A.; Josserand, V.; Coll, J.-L.; Ravanat, J.-L.; Elleaume, H.; Bulin, A.-L. Nanoscintillator Coating: A Key Parameter That Strongly Impacts Internalization, Biocompatibility, and Therapeutic Efficacy in Pancreatic Cancer Models. *SMALL Sci.* **2024**, *4* (5). <https://doi.org/10.1002/smssc.202400041>
- (106) Guedes, J. P.; Boyer, J. B.; Elurbide, J.; Carte, B.; Redeker, V.; Sago, L.; Meinel, T.; Corte-Real, M.; Giglione, C.; Aldabe, R. NatB Protects Procaspace-8 from UBR4-Mediated Degradation and Is Required for Full Induction of the Extrinsic Apoptosis Pathway. *Mol. Cell. Biol.* **2024**, *44* (9), 358–371. <https://doi.org/10.1080/10985549.2024.2382453>
- (107) Martinez-Vollbert, E.; Philouze, C.; Cavignac, T.; Latouche, C.; Loiseau, F.; Lanoe, P.-H. Neutral 2-Phenylbenzimidazole-Based Iridium(III) Complexes with Picolinate Ancillary Ligand: Tuning the Emission Properties by Manipulating the Substituent on the Benzimidazole Ring. *DALTON Trans.* **2024**, *53* (10), 4705–4718.
<https://doi.org/10.1039/d3dt03498d>
- (108) Chovelon, B.; Ranganathan, V.; Srinivasan, S.; McConnell, E. M.; Faure, P.; Fiore, E.; Ravelet, C.; Peyrin, E.; DeRosa, M. Noncompetitive Determination of Small Analytes by Sandwich-Type Lateral Flow Assay Based on an Aptamer Kissing Complex. *Anal. Chem.* **2024**, *96* (18), 6875–6880. <https://doi.org/10.1021/acs.analchem.3c05472>
- (109) Escobar, V.; Brenet, S.; Huot, C.; El Kazzy, M.; Buhot, A.; Scaramozzino, N.; Hou, Y. Novel High-Affinity Peptides Selected by Phage Display for Selective Detection of Aromatic VOCs. In *2024 IEEE INTERNATIONAL SYMPOSIUM ON OLFACTION AND ELECTRONIC NOSE, ISOEN; IEEE*, 2024. <https://doi.org/10.1109/ISOEN61239.2024.10556353>
- (110) Sauter, C.; Housset, D.; Orlans, J.; de Wijn, R.; Rollet, K.; Rose, S. L.; Basu, S.; Benas, P.; Perez, J.; de Sanctis, D.; Maury, O.; Girard, E. Nucleating Agent Crystallophore Induces Instant Protein Crystallization. *Cryst. GROWTH Des.* **2024**, *24* (16), 6682–6690.
<https://doi.org/10.1021/acs.cgd.4c00600>
- (111) Muscat, S.; Martino, G.; Manigrasso, J.; Marcia, M.; De Vivo, M. On the Power and Challenges of Atomistic Molecular Dynamics to Investigate RNA Molecules. *J. Chem. THEORY Comput.* **2024**, *20* (16), 6992–7008. <https://doi.org/10.1021/acs.jctc.4c00773>
- (112) Yi, W.; Tran-Nguyen, V.-K.; Boumendjel, A. One-Step Synthesis of Diaryloxadiazoles as Potent Inhibitors of BCRP. *FUTURE Med. Chem.* **2024**, *16* (8), 723–735.
<https://doi.org/10.4155/fmc-2023-0322>

- (113) Subileau, M.; Vittet, D. Ontogenesis of the Mouse Ocular Surface Lymphatic Vascular Network. *Invest. Ophthalmol. Vis. Sci.* **2023**, 64 (15). <https://doi.org/10.1167/iovs.64.15.7>
- (114) Bratash, O.; Buhot, A.; Leroy, L.; Engel, E. Optical Fiber Biosensors toward in Vivo Detection. *Biosens. Bioelectron.* **2024**, 251. <https://doi.org/10.1016/j.bios.2024.116088>
- (115) Diaz-Barreiro, A.; Cereghetti, G.; Sanchez, F. G. O.; Tonacini, J.; Talabot-Ayer, D.; Kieffer-Jaquinod, S.; Kissling, V. M.; Huard, A.; Swale, C.; Knowles, T. P. J.; Coute, Y.; Peter, M.; Frances-Monerris, A.; Palmer, G. Oxidation-Sensitive Cysteines Drive IL-38 Amyloid Formation. *CELL Rep.* **2024**, 43 (11). <https://doi.org/10.1016/j.celrep.2024.114940>
- (116) Cossu, J.; Ravelet, C.; Martel-Frchet, V.; Peyrin, E.; Boturyn, D. Peptide-Based CE-SELEX Enables Convenient Isolation of Aptamers Specifically Recognizing CD20-Expressing Cells. *Bioorg. Med. Chem.* **2024**, 110. <https://doi.org/10.1016/j.bmc.2024.117831>
- (117) Lanoe, P.-H.; Philouze, C.; Molton, F.; Vanthuynne, N.; Kundu, D.; Delporte-Pebay, M.; Crassous, J.; Latouche, C.; Loiseau, F. Phosphorescent Chiral Cationic Binuclear Iridium(III) Complexes: Boosting the Circularly Polarized Luminescence Brightness. *Inorg. Chem.* **2024**, 63 (52), 24855–24866. <https://doi.org/10.1021/acs.inorgchem.4c04271>
- (118) Jouhet, J.; Alves, E.; Boutte, Y.; Darnet, S.; Domergue, F.; Durand, T.; Fischer, P.; Fouillen, L.; Grube, M.; Joubes, J.; Kalnenieks, U.; Kargul, J. M.; Khozin-Goldberg, I.; Leblanc, C.; Letsiou, S.; Lupette, J.; Markov, G., V.; Medina, I.; Melo, T.; Mojzes, P.; Momchilova, S.; Mongrand, S.; Moreira, A. S. P.; Neves, B. B.; Ogere, C.; Rey, F.; Santaefemia, S.; Schaller, H.; Schleyer, G.; Tietel, Z.; Zammit, G.; Ziv, C.; Domingues, R. Plant and Algal Lipidomes: Analysis, Composition, and Their Societal Significance. *Prog. LIPID Res.* **2024**, 96. <https://doi.org/10.1016/j.plipres.2024.101290>
- (119) Blanc-Mathieu, R.; Dumas, R.; Turchi, L.; Lucas, J.; Parcy, F. Plant-TFClass: A Structural Classification for Plant Transcription Factors. *TRENDS PLANT Sci.* **2024**, 29 (1), 40–51. <https://doi.org/10.1016/j.tplants.2023.06.023>
- (120) Baron, T.; Jouhet, J.; Schilling, M.; Cussac, M.; Charles, F.; Vidal, V.; Chervin, C.; Sallanon, H. Postharvest Lipidomics of Lettuce Leaves. *POSTHARVEST Biol. Technol.* **2024**, 212. <https://doi.org/10.1016/j.postharvbio.2024.112869>
- (121) Sharma, K.; Lopez-Sanchez, U.; Nury, H.; Schoehn, G.; Darnault, C.; Breyton, C.; Petit-Etienne, C.; Vergnaud, C.; Li Ling, W.; Cunge, G.; Okuno, c H. Precision Defect Integrated Graphene as Reliable Support Membrane for High-Resolution Cryo-Transmission Electron Microscopy. *CARBON* **2024**, 230. <https://doi.org/10.1016/j.carbon.2024.119625>
- (122) Vercasson, A.; Choisnard, L.; Lamberet, E.; Gaucel, S.; Guillard, V.; Angellier-Coussy, H. Prediction of the Structure of Polymer-Coated Cardboards Produced by Thermocompression Using I-Optimal Design of Experiment. *Mater. TODAY Commun.* **2024**, 41. <https://doi.org/10.1016/j.mtcomm.2024.110411>
- (123) Haake, M.; Reuillard, B.; Chavarot-Kerlidou, M.; Costentin, C.; Artero, V. Proton Relays in Molecular Catalysis for Hydrogen Evolution and Oxidation: Lessons From the Mimicry of Hydrogenases and Electrochemical Kinetic Analyses. *Angew. Chem.-Int. Ed.* **2024**, 63 (52). <https://doi.org/10.1002/anie.202413910>
- (124) Dupe, S.; Liu, D.; Ghosh, A.; Vasenko, A. S.; Pouget, S.; Schlutig, S.; Vidal, M.; Lebeau, B.; Ling, W. L.; Reiss, P.; Prezhdo, O. V.; Ryzhikov, A.; Aldakov, D. Quantum-Confined Bismuth Iodide Perovskite Nanocrystals in Mesoporous Matrices. *NANOSCALE* **2024**, 16 (23), 11223–11231. <https://doi.org/10.1039/d4nr00430b>
- (125) Soualmia, F.; Cherrier, M. V.; Chauvire, T.; Mauger, M.; Tatham, P.; Guillot, A.; Guinchard, X.; Martin, L.; Amara, P.; Mouesca, J.-M.; Daghmoum, M.; Benjdia, A.; Gambarelli, S.; Berteau, O.; Nicolet, Y. Radical S-Adenosyl-L-Methionine Enzyme PylB: A C-Centered Radical to Convert L-Lysine into (3R)-3-Methyl-D-Ornithine. *J. Am. Chem. Soc.* **2024**, 146 (10), 6493–6505. <https://doi.org/10.1021/jacs.3c03747>
- (126) Arnoux-Courseaux, M.; Coudert, Y. Re-Examining Meristems through the Lens of Evo-Devo. *TRENDS PLANT Sci.* **2024**, 29 (4), 413–427. <https://doi.org/10.1016/j.tplants.2023.11.003>

- (127) Chartier, C.; Chardon-Noblat, S.; Costentin, C. Redox Behavior and Kinetics of Hydroxo Ligand Exchange on Iron Tetraphenylporphyrin: Comparison with Chloro Exchange and Consequences for Its Role in Self-Modulation of Molecular Catalysis of Electrochemical Reactions. *Inorg. Chem.* **2024**, 63 (17), 7541–7548.
<https://doi.org/10.1021/acs.inorgchem.4c00825>
- (128) Mons, C.; Salameh, M.; Botzanowski, T.; Clemancey, M.; Dorlet, P.; Vallieres, C.; Erb, S.; Vernis, L.; Guittet, O.; Lepoivre, M.; Huang, M.-E.; Cianferani, S.; Latour, J.-M.; Blondin, G.; Golinelli-Cohen, M.-P. Regulations of mitoNEET by the Key Redox Homeostasis Molecule Glutathione. *J. Inorg. Biochem.* **2024**, 255.
<https://doi.org/10.1016/j.jinorgbio.2024.112535>
- (129) Sacchi, M.; Sauter-Starace, F.; Mailley, P.; Texier, I. Resorbable Conductive Materials for Optimally Interfacing Medical Devices with the Living. *Front. Bioeng. Biotechnol.* **2024**, 12. <https://doi.org/10.3389/fbioe.2024.1294238>
- (130) Bally, I.; Drumont, G.; Rossi, V.; Guseva, S.; Botova, M.; Reiser, J.-B.; Thepaut, M.; Dylon, S. D.; Dumestre-Perard, C.; Gaboriaud, C.; Fieschi, F.; Blackledge, M.; Poignard, P.; Thielens, N. M. Revisiting the Interaction between Complement Lectin Pathway Protease MASP-2 and SARS-CoV-2 Nucleoprotein. *Front. Immunol.* **2024**, 15.
<https://doi.org/10.3389/fimmu.2024.1419165>
- (131) Soulie, M.; Deletaz, A.; Wehbie, M.; Mahler, F.; Chantemargue, B.; Bouchemal, I.; Le Roy, A.; Petit-Hartlein, I.; Fieschi, F.; Breyton, C.; Ebel, C.; Keller, S.; Durand, G. Rigid Cyclic Fluorinated Detergents: Fine-Tuning the Hydrophilic-Lipophilic Balance Controls Self-Assembling and Biochemical Properties. *ACS Appl. Mater. INTERFACES* **2024**, 16 (26), 32971–32982. <https://doi.org/10.1021/acsami.4c03359>
- (132) Moro, S.; Omrani, M.; Erbek, S.; Jourdan, M.; Vandekerckhove, C. I.; Nogier, C.; Vanwonterghem, L.; Molina, M.-C.; Bernado, P.; Thureau, A.; Coll, J.-L.; Renaudet, O.; Le Guevel, X.; Faure, V. Self-Assembled Peptide-Gold Nanoclusters with SiRNA Targeting Telomeric Response to Enhance Radiosensitivity in Lung Cancer Cells. *SMALL Sci.* **2025**, 5 (2). <https://doi.org/10.1002/smssc.202400156>
- (133) Darmau, B.; Sacchi, M.; Texier, I.; Gross, A. J. Self-Extracting Dextran-Based Hydrogel Microneedle Arrays with an Interpenetrating Bioelectroenzymatic Sensor for Transdermal Monitoring with Matrix Protection. *Adv. Healthc. Mater.* **2025**, 14 (2).
<https://doi.org/10.1002/adhm.202403209>
- (134) Hugouvieux, V.; Blanc-Mathieu, R.; Janeau, A.; Paul, M.; Lucas, J.; Xu, X.; Ye, H.; Lai, X.; Le Hir, S.; Guillotin, A.; Galien, A.; Yan, W.; Nanao, M.; Kaufmann, K.; Parcy, F.; Zubieta, C. SEPALLATA-Driven MADS Transcription Factor Tetramerization Is Required for Inner Whorl Floral Organ Development. *PLANT CELL* **2024**, 36 (9), 3435–3450.
<https://doi.org/10.1093/plcell/koae151>
- (135) Zhamungui Sanchez, E.; Hijazi, H.; Haidar, J.; Mecarelli, E.; Bauda, E.; Petit-Haertlein, I.; Teulon, J.-M.; Pellequer, J.-L.; Boeri Erba, E. Sequencing Intact Membrane Proteins Using MALDI Mass Spectrometry. *Front. Anal. Sci.* **2023**, 3.
<https://doi.org/10.3389/frans.2023.1124741>
- (136) Raymond, B. B.; Guenzi-Tiberi, P.; Marechal, E.; Quarmby, L. M. Snow Alga *Sanguina Aurantia* as Revealed through de Novo Genome Assembly and Annotation. *G3-GENES GENOMES Genet.* **2024**, 14 (10). <https://doi.org/10.1093/g3journal/jkae181>
- (137) Laval, P.-A.; Piecyk, M.; Le Guen, P.; Ilie, M.-D.; Marion, A.; Fauvre, J.; Coste, I.; Renno, T.; Aznar, N.; Hadji, C.; Migdal, C.; Duret, C.; Bertolino, P.; Ferraro-Peyret, C.; Nicolas, A.; Chaveroux, C. Soft Extracellular Matrix Drives Endoplasmic Reticulum Stress-Dependent S Quiescence Underlying Molecular Traits of Pulmonary Basal Cells. *ACTA Biomater.* **2024**, 182, 93–110. <https://doi.org/10.1016/j.actbio.2024.05.033>
- (138) Hagmeyer, N.; Schwab, A.; Mroweh, N.; McManus, C.; Varghese, M.; Mouesca, J.-M.; Gambarelli, S.; Kupfer, S.; Chavarot-Kerlidou, M.; Dietzek-Ivansic, B. Spectroscopic

- Investigation of a Ruthenium Tris-Diimine Complex Featuring a Bioinspired Alloxazine Ligand. *CHEMPHOTOCHEM* **2024**, 8 (12). <https://doi.org/10.1002/cptc.202400175>
- (139) Bagdadi, N.; Wu, J.; Delaroche, J.; Serre, L.; Delphin, C.; De Andrade, M.; Carcel, M.; Nawabi, H.; Pinson, B.; Verin, C.; Coute, Y.; Gory-Faure, S.; Andrieux, A.; Stoppin-Mellet, V.; Arnal, I. Stable GDP-Tubulin Islands Rescue Dynamic Microtubules. *J. CELL Biol.* **2024**, 223 (8). <https://doi.org/10.1083/jcb.202307074>
- (140) Vauclare, P.; Wulffele, J.; Lacroix, F.; Servant, P.; Confalonieri, F.; Kleman, J.-P.; Bourgeois, D.; Timmins, J. Stress-Induced Nucleoid Remodeling in *Deinococcus Radiodurans* Is Associated with Major Changes in Heat Unstable (HU) Protein Dynamics. *NUCLEIC ACIDS Res.* **2024**, 52 (11), 6406–6423. <https://doi.org/10.1093/nar/gkae379>
- (141) Arragain, B.; Pelosse, M.; Thompson, A.; Cusack, S. Structural and Functional Analysis of the Minimal Orthomyxovirus-like Polymerase of Tilapia Lake Virus from the Highly Diverged Amnoonviridae Family. *Nat. Commun.* **2023**, 14 (1). <https://doi.org/10.1038/s41467-023-44044-x>
- (142) Dubiez, E.; Pellegrini, E.; Brask, M. F.; Garland, W.; Foucher, A.-E.; Huard, K.; Jensen, T. H.; Cusack, S.; Kadlec, J. Structural Basis for Competitive Binding of Productive and Degradative Co-Transcriptional Effectors to the Nuclear Cap-Binding Complex. *CELL Rep.* **2024**, 43 (1). <https://doi.org/10.1016/j.celrep.2023.113639>
- (143) Griffith-Jones, S.; Alvarez, L.; Mukhopadhyay, U.; Gharbi, S.; Rettel, M.; Adams, M.; Hennig, J.; Bhogaraju, S. Structural Basis for RAD18 Regulation by MAGEA4 and Its Implications for RING Ubiquitin Ligase Binding by MAGE Family Proteins. *EMBO J.* **2024**, 43 (7), 1273–1300. <https://doi.org/10.1038/s44318-024-00058-9>
- (144) Sharma, R.; Adams, M.; Griffith-Jones, S.; Sahr, T.; Gomez-Valero, L.; Weis, F.; Hons, M.; Gharbi, S.; Berkane, R.; Stolz, A.; Buchrieser, C.; Bhogaraju, S. Structural Basis for the Toxicity of *Legionella Pneumophila* Effector SidH. *Nat. Commun.* **2023**, 14 (1). <https://doi.org/10.1038/s41467-023-42683-8>
- (145) Perez, L. M.; Ielasi, F. S.; Lee, A.; Delaforge, E.; Juyoux, P.; Tengo, M.; Davis, R. J.; Palencia, A.; Jensen, M. R. Structural Basis of Homodimerization of the JNK Scaffold Protein JIP2 and Its Heterodimerization with JIP1. *STRUCTURE* **2024**, 32 (9). <https://doi.org/10.1016/j.str.2024.06.010>
- (146) Razew, M.; Fraudeau, A.; Pfeleiderer, M. M.; Linares, R.; Galej, W. P. Structural Basis of the Integrator Complex Assembly and Association with Transcription Factors. *Mol. CELL* **2024**, 84 (13). <https://doi.org/10.1016/j.molcel.2024.05.009>
- (147) Throll, P.; G. Dolce, L.; Rico-Lastres, P.; Arnold, K.; Tengo, L.; Basu, S.; Kaiser, S.; Schneider, R.; Kowalinski, E. Structural Basis of tRNA Recognition by the m3C RNA Methyltransferase METTL6 in Complex with SerRS Seryl-tRNA Synthetase. *Nat. Struct. Mol. Biol.* **2024**, 31 (10). <https://doi.org/10.1038/s41594-024-01341-3>
- (148) Durieux Trouillette, Q.; Housset, D.; Tarillon, P.; Arragain, B.; Malet, H. Structural Characterization of the Oligomerization of Full-Length Hantaan Virus Polymerase into Symmetric Dimers and Hexamers. *Nat. Commun.* **2024**, 15 (1). <https://doi.org/10.1038/s41467-024-46601-4>
- (149) Lopez-Sanchez, U.; Munro, L. J.; Ladefoged, L. K.; Pedersen, A. J.; Brun, C. C.; Lyngby, S. M.; Baud, D.; Juillan-Binard, C.; Pedersen, M. G.; Lummis, S. C. R.; Bang-Andersen, B.; Schiott, B.; Chipot, C.; Schoehn, G.; Neyton, J.; Dehez, F.; Nury, H.; Kristensen, A. S. Structural Determinants for Activity of the Antidepressant Vortioxetine at Human and Rodent 5-HT₃ Receptors. *Nat. Struct. Mol. Biol.* **2024**, 31 (8). <https://doi.org/10.1038/s41594-024-01282-x>
- (150) Maity, A.; Wulffele, J.; Ayala, I.; Favier, A.; Adam, V.; Bourgeois, D.; Brutscher, B. Structural Heterogeneity in a Phototransformable Fluorescent Protein Impacts Its Photochemical Properties. *Adv. Sci.* **2024**, 11 (10). <https://doi.org/10.1002/advs.202306272>

- (151) Gonnin, L.; Desfosses, A.; Bacia-Verloop, M.; Chevret, D.; Galloux, M.; Eleouet, J.-F.; Gutsche, I. Structural Landscape of the Respiratory Syncytial Virus Nucleocapsids. *Nat. Commun.* **2023**, *14* (1). <https://doi.org/10.1038/s41467-023-41439-8>
- (152) Lethier, M.; Huard, K.; Hons, M.; Favier, A.; Brutscher, B.; Erba, E. B.; Abbott, D. W.; Cusack, S.; Pellegrini, E. Structure Shows That the BIR2 Domain of E3 Ligase XIAP Binds across the RIPK2 Kinase Dimer Interface. *LIFE Sci. ALLIANCE* **2023**, *6* (11). <https://doi.org/10.26508/lsa.202201784>
- (153) Arragain, B.; Krischuns, T.; Pelosse, M.; Drncova, P.; Blackledge, M.; Naffakh, N.; Cusack, S. Structures of Influenza A and B Replication Complexes Give Insight into Avian to Human Host Adaptation and Reveal a Role of ANP32 as an Electrostatic Chaperone for the Apo-Polymerase. *Nat. Commun.* **2024**, *15* (1). <https://doi.org/10.1038/s41467-024-51007-3>
- (154) El Kazzy, M.; Lalis, M.; Hurot, C.; Weerakkody, J. S.; Mathey, R.; Saint-Pierre, C.; Buhot, A.; Livache, T.; Topin, J.; Moitrier, L.; Belloir, C.; Briand, L.; Hou, Y. Study and Optimization of the Selectivity of an Odorant Binding Protein-Based Bioelectronic Nose. *Biosens. Bioelectron.* **2025**, 268. <https://doi.org/10.1016/j.bios.2024.116879>
- (155) Seydoux, C.; Ezzedine, J. A.; Larbi, G. S.; Ravanel, S.; Marechal, E.; Barnes, J.-P.; Jouneau, P.-H. Subcellular ToF-SIMS Imaging of the Snow Alga *Sanguina Nivaloides* by Combining High Mass and High Lateral Resolution Acquisitions. *Anal. Chem.* **2024**, *96* (50), 19917–19925. <https://doi.org/10.1021/acs.analchem.4c03826>
- (156) Visona, A.; Cavalaglio, S.; Labau, S.; Soulan, S.; Joisten, H.; Berger, F.; Dieny, B.; Morel, R.; Nicolas, A. Substrate Softness Increases Magnetic Microdiscs-Induced Cytotoxicity. *NANOSCALE Adv.* **2024**, *7* (1), 219–230. <https://doi.org/10.1039/d4na00704b>
- (157) Duret, D.; Grassin, A.; Henry, M.; Alcouffe, P.; Raja, S.; Baleizao, C.; Farinha, J. P.; Charreyre, M.-T.; Boturyn, D.; Coll, J.-L.; Favier, A. Synthesis of cRGD Peptide Cluster-Decorated NIR-Fluorescent PISA-RAFT Nanoparticles Targeting Integrin Expressing Cells. *Polym. Chem.* **2024**, *15* (4), 310–320. <https://doi.org/10.1039/d3py01176c>
- (158) Laigre, E.; Bonnet, H.; Beauvineau, C.; Lavergne, T.; Verga, D.; Defrancq, E.; Dejeu, J.; Teulade-Fichou, M. -p. Systematic Evaluation of Benchmark G4 Probes and G4 Clinical Drugs Using Three Biophysical Methods: A Guideline to Evaluate Rapidly G4-Binding Affinity. *CHEMBIOCHEM* **2024**, *25* (12). <https://doi.org/10.1002/cbic.202400210>
- (159) Silvestri, I.; Manigrasso, J.; Andreani, A.; Brindani, N.; Mas, C.; Reiser, J.-B.; Vidossich, P.; Martino, G.; McCarthy, A. A.; De Vivo, M.; Marcia, M. Targeting the Conserved Active Site of Splicing Machines with Specific and Selective Small Molecule Modulators. *Nat. Commun.* **2024**, *15* (1). <https://doi.org/10.1038/s41467-024-48697-0>
- (160) Rieu, P.; Beretta, V. M.; Caselli, F.; Thevenon, E.; Lucas, J.; Rizk, M.; Franchini, E.; Caporali, E.; Paleni, C.; Nanao, M. H.; Kater, M. M.; Dumas, R.; Zubieta, C.; Parcy, F.; Gregis, V. The ALOG Domain Defines a Family of Plant- Specific Transcription Factors Acting during Arabidopsis Flower Development. *Proc. Natl. Acad. Sci. U. S. A.* **2024**, *121* (10). <https://doi.org/10.1073/pnas.2310464121>
- (161) Madern, D.; Halgand, F.; Houee-Levin, C.; Dufour, A.-B.; Coquille, S.; Ansanay-Alex, S.; Sacquin-Mora, S.; Brochier-Armanet, C. The Characterization of Ancient Methanococcales Malate Dehydrogenases Reveals That Strong Thermal Stability Prevents Unfolding Under Intense γ -Irradiation. *Mol. Biol. Evol.* **2024**, *41* (12). <https://doi.org/10.1093/molbev/msae231>
- (162) Charbonnier, P.; Jouneau, P.-H.; Deniaud, A. The Endocrine Disruptor Effect of Metal Nanoparticles Mainly Depends on Their Capacity to Release Metal Ions. *Environ. Sci. - NANO* **2024**, *11* (7), 3192–3201. <https://doi.org/10.1039/d4en00065j>
- (163) Krischuns, T.; Arragain, B.; Isel, C.; Paisant, S.; Budt, M.; Wolff, T.; Cusack, S.; Naffakh, N. The Host RNA Polymerase II C-Terminal Domain Is the Anchor for Replication of the Influenza Virus Genome. *Nat. Commun.* **2024**, *15* (1). <https://doi.org/10.1038/s41467-024-45205-2>

- (164) Engilberge, S.; Caramello, N.; Bukhdruker, S.; Byrdin, M.; Giraud, T.; Jacquet, P.; Scortani, D.; Biv, R.; Gonzalez, H.; Broquet, A.; van der Linden, P.; Rose, S. L.; Flot, D.; Balandin, T.; Gordeliy, V.; Lahey-Rudolph, J. M.; Roessle, M.; de Sanctis, D.; Leonard, G. A.; Mueller-Dieckmann, C.; Royant, A. The TR-icOS Setup at the ESRF: Time-Resolved Microsecond UV-Vis Absorption Spectroscopy on Protein Crystals. *ACTA Crystallogr. Sect. -Struct. Biol.* **2024**, *80* (1), 16–25. <https://doi.org/10.1107/S2059798323010483>
- (165) Maragno, A. R. A.; Morozan, A.; Fize, J.; Pellat, M.; Artero, V.; Charton, S.; Matheron, M. Thermally Integrated Photoelectrochemical Devices with Perovskite/Silicon Tandem Solar Cells: A Modular Approach for Scalable Direct Water Splitting. *Sustain. ENERGY FUELS* **2024**, *8* (16), 3726–3739. <https://doi.org/10.1039/d4se00547c>
- (166) Baudoin, M.; Chouquet, A.; Nguyen, M.; Zapun, A.; Peres, B.; Morlot, C.; Durmort, C.; Wong, Y.-S. To Click or Not to Click for Short Pulse-Labeling of the Bacterial Cell Wall. *RSC Adv.* **2024**, *14* (45), 33133–33142. <https://doi.org/10.1039/d4ra04945d>
- (167) Soullard, L.; Schlepp, A.; Buret, R.; Lancelon-Pin, C.; Nonglaton, G.; Texier, I.; Jean, B.; Rolere, S. Towards the 3D Printing of Innovative Hydrogel Scaffolds through Vat Polymerization Techniques Using Methacrylated Carboxymethylcellulose Aqueous Formulations. *Prog. Addit. Manuf.* **2025**, *10* (4), 2177–2189. <https://doi.org/10.1007/s40964-024-00744-4>
- (168) Bouzidi, Y.; Bosco, M.; Gao, H.; Pradeau, S.; Matheron, L.; Chantret, I.; Busca, P.; Fort, S.; Gravier-Pelletier, C.; Moore, S. E. H. Transport of N-Acetylchitooligosaccharides and Fluorescent N-Acetylchitooligosaccharide Analogs into Rat Liver Lysosomes. *GLYCOBIOLOGY* **2024**, *34* (2). <https://doi.org/10.1093/glycob/cwad099>
- (169) Fortage, J.; Collomb, M.-N.; Costentin, C. Turnover Number in Photoinduced Molecular Catalysis of Hydrogen Evolution: A Benchmarking for Catalysts? *CHEMSUSCHEM* **2024**, *17* (17). <https://doi.org/10.1002/cssc.202400205>
- (170) Beaumet, M.; Lazinski, L. M.; Maresca, M.; Haudecoeur, R. Tyrosinase Inhibition and Antimelanogenic Effects of Resorcinol-Containing Compounds. *CHEMMEDCHEM* **2024**, *19* (23). <https://doi.org/10.1002/cmdc.202400314>
- (171) Bagnall, A. J.; Eliasson, N.; Hansson, S.; Chavarot-Kerlidou, M.; Artero, V.; Tian, H.; Hammarstrom, L. Ultrafast Electron Transfer from CuInS₂ Quantum Dots to a Molecular Catalyst for Hydrogen Production: Challenging Diffusion Limitations. *ACS Catal.* **2024**, *14* (6), 4186–4201. <https://doi.org/10.1021/acscatal.3c06216>
- (172) Bauda, E.; Gallet, B.; Moravcova, J.; Effantin, G.; Chan, H.; Novacek, J.; Jouneau, P.-H.; Rodrigues, C. D. A.; Schoehn, G.; Moriscot, C.; Morlot, C. Ultrastructure of Macromolecular Assemblies Contributing to Bacterial Spore Resistance Revealed by in Situ Cryo-Electron Tomography. *Nat. Commun.* **2024**, *15* (1). <https://doi.org/10.1038/s41467-024-45770-6>
- (173) Nguyen, D. N.; Giannoudis, E.; Straistari, T.; Fize, J.; Koepf, M.; Tran, P. D.; Chavarot-Kerlidou, M.; Artero, V. Unassisted Solar Syngas Production by a Molecular Dye-Cobalt Catalyst Assembly in a Tandem Photoelectrochemical Cell. *ACS ENERGY Lett.* **2024**, *9* (3), 829–834. <https://doi.org/10.1021/acsenenergylett.3c02480>
- (174) Gatineau, D.; Lesage, D.; Gueret, R.; Mador, S. D.; Milet, A.; Gimbert, Y. Understanding Gold-Alkyne Activation from Bond Dissociation Energies of Gold-Alkyne Complexes. *Eur. J. Org. Chem.* **2024**, *27* (29). <https://doi.org/10.1002/ejoc.202400340>
- (175) Galeone, A.; Devime, F.; Chapon, V.; Merroun, M. L.; Alban, C.; Ravanel, S.; Bourguignon, J. Uranium-Tolerant Soil Bacteria Protect Arabidopsis Thaliana Seedling Growth from Uranium Toxicity. *Environ. Exp. Bot.* **2024**, 225. <https://doi.org/10.1016/j.envexpbot.2024.105831>
- (176) Maestre-Reyna, M.; Wang, P.-H.; Nango, E.; Hosokawa, Y.; Saft, M.; Furrer, A.; Yang, C.-H.; Putu, E. P. G. N.; Wu, W.-J.; Emmerich, H.-J.; Caramello, N.; Franz-Badur, S.; Yang, C.; Engilberge, S.; Wranik, M.; Glover, H. L.; Weinert, T.; Wu, H.-Y.; Lee, C.-C.; Huang, W.-C.; Huang, K.-F.; Chang, Y.-K.; Liao, J.-H.; Weng, J.-H.; Gad, W.; Chang, C.-W.; Pang, A. H.;

- Yang, K.-C.; Lin, W.-T.; Chang, Y.-C.; Gashi, D.; Beale, E.; Ozerov, D.; Nass, K.; Knopp, G.; Johnson, P. J. M.; Cirelli, C.; Milne, C.; Bacellar, C.; Sugahara, M.; Owada, S.; Joti, Y.; Yamashita, A.; Tanaka, R.; Tanaka, T.; Luo, F.; Tono, K.; Zarzycka, W.; Mueller, P.; Alahmad, M. A.; Bezold, F.; Fuchs, V.; Gnau, P.; Kiontke, S.; Korf, L.; Reithofer, V.; Rosner, C. J.; Seiler, E. M.; Watad, M.; Werel, L.; Spadaccini, R.; Yamamoto, J.; Iwata, S.; Zhong, D.; Standfuss, J.; Royant, A.; Bessho, Y.; Essen, L.-O.; Tsai, M.-D. Visualizing the DNA Repair Process by a Photolyase at Atomic Resolution. *SCIENCE* **2023**, 382 (6674).
<https://doi.org/10.1126/science.add7795>
- (177) Michaud, M.; Nonglaton, G.; Anxionnaz-Minvielle, Z. Wall-Immobilized Biocatalyst vs. Packed Bed in Miniaturized Continuous Reactors: Performances and Scale-Up. *CHEMBIOCHEM* **2024**, 25 (11). <https://doi.org/10.1002/cbic.202400086>
- (178) Darmau, B.; Hoang, A.; Gross, A. J.; Texier, I. Water-Based Synthesis of Dextran-Methacrylate and Its Use to Design Hydrogels for Biomedical Applications. *Eur. Polym. J.* **2024**, 221. <https://doi.org/10.1016/j.eurpolymj.2024.113515>
- (179) Torres-Romero, I.; Legeret, B.; Bertrand, M.; Sorigue, D.; Damm, A.; Cuine, S.; Veillet, F.; Blot, C.; Brugiére, S.; Coute, Y.; Garneau, M. G.; Kotapati, H. K.; Xin, Y.; Xu, J.; Bates, P. D.; Thiam, A. R.; Beisson, F.; Li-Beisson, Y. α/β Hydrolase Domain-Containing Protein 1 Acts as a Lysolipid Lipase and Is Involved in Lipid Droplet Formation. *Natl. Sci. Rev.* **2024**, 11 (12). <https://doi.org/10.1093/nsr/nwae398>