



All 2019 publications mentioning the GRAL labex, ANR-17-EURE-0003 and/or ANR-10-LABX-49-01:

1. Aguilar, Patricia Pereira, Tobias Amadeus Schneider, Viktoria Wetter, Daniel Maresch, Wai Li Ling, Andres Tover, Petra Steppert, et Alois Jungbauer. « Polymer-grafted chromatography media for the purification of enveloped virus-like particles, exemplified with HIV-1 gag VLP ». *Vaccine* 37, no 47 (2019): 7070–7080.
2. Alfano, Marila, Julien Pérard, et Christine Cavazza. « Nickel-Induced Oligomerization of the Histidine-Rich Metallochaperone CooJ from *Rhodospirillum Rubrum* ». *Inorganics* 7, no 7 (2019): 84.
3. Alfano, Marila, Giulia Veronesi, Francesco Musiani, Barbara Zambelli, Luca Signor, Olivier Proux, Mauro Rovezzi, Stefano Ciurli, et Christine Cavazza. « A Solvent-Exposed Cysteine Forms a Peculiar NiII-Binding Site in the Metallochaperone CooT from *Rhodospirillum rubrum* ». *Chemistry—A European Journal* 25, no 67 (2019): 15351–15360.
4. Alqabandi, Maryam, Nicola de Franceschi, Nolwenn Miguet, Sourav Maity, Marta Bally, Wouter Roos, Winfried Weissenhorn, Patricia Bassereau, et Stéphanie Mangenot. « The ESCRT-III Isoforms CHMP2A And CHMP2B Display Different Effects On Membranes Upon Polymerization ». *BioRxiv*, 2019, 756403.
5. Arragain, Benoît, Juan Reguera, Ambroise Desfosses, Irina Gutsche, Guy Schoehn, et Hélène Malet. « High resolution cryo-EM structure of the helical RNA-bound Hantaan virus nucleocapsid reveals its assembly mechanisms ». *Elife* 8 (2019): e43075.
6. Ashraf, Usama, Laura Tengo, Laurent Le Corre, Guillaume Fournier, Andrew A McCarthy, Marie-Anne Rameix-Welti, Christine Gravier-Pelletier, et al. « Destabilization of the human RED–SMU1 splicing complex as a basis for host-directed antiinfluenza strategy ». *Proceedings of the National Academy of Sciences* 116, no 22 (2019): 10968–10977.
7. Bally, Isabelle, Fabien Dalonneau, Anne Chouquet, Rebekka Gröbner, Albert Amberger, Ines Kapferer-Seebacher, Heribert Stoiber, et al. « Two different missense C1S mutations, associated to periodontal Ehlers-Danlos syndrome, lead to identical molecular outcomes ». *Frontiers in Immunology* 10 (2019): 2962.
8. Bally, Isabelle, Antonio Inforzato, Fabien Dalonneau, Matteo Stravalaci, Barbara Bottazzi, Christine Gaboriaud, et Nicole M Thielens. « Interaction of C1q with pentraxin 3 and IgM revisited: mutational studies with recombinant C1q variants ». *Frontiers in immunology* 10 (2019): 461.
9. Balzano, Sergio, Laura Villanueva, Marijke de Bar, Diana X Sahonero Canavesi, Caglar Yildiz, Julia C Engelmann, Eric Marechal, Josselin Lupette, Jaap S Sinninghe Damsté, et Stefan Schouten. « Biosynthesis of long chain alkyl diols and long chain alkenols in *Nannochloropsis* spp.(Eustigmatophyceae) ». *Plant and Cell Physiology* 60, no 8 (2019): 1666–1682.
10. Bego, Mariana G, Nolwenn Miguet, Alexandre Laliberté, Nicolas Aschman, Francine Gerard, Angelique A Merakos, Winfried Weissenhorn, et Éric A Cohen. « Activation of the ILT7 receptor and plasmacytoid dendritic cell responses are governed by structurally-distinct BST2 determinants ». *Journal of Biological Chemistry* 294, no 27 (2019): 10503–10518.
11. Bego, Mariana G, Nolwenn Miguet, Alexandre Laliberte, Nicolas Aschman, Francine Gerard, Angelique A Merakos, Winfried Weissenhorn, et Éric A Cohen. « ILT7 activation and plasmacytoid dendritic cell response are governed by BST2 determinants that are structurally-distinct ». *bioRxiv*, 2019, 557116.
12. Bélimé, Agathe, Nicole M Thielens, Edmond Gravel, Philippe Frachet, Sarah Ancelet, Pascale Tacnet, Charlotte Caneiro, et al. « Recognition protein C1q of innate immunity agglutinates nanodiamonds without activating complement ». *Nanomedicine: Nanotechnology, Biology and Medicine* 18 (2019): 292–302.
13. Bertin, Aurélie, Nicola De Franceschi, Eugenio De La Mora, Nolwen Miguet, Aurelie di Cicco, Wouter H Roos,

- Stephanie Mangenot, Winfried Weissenhorn, Patricia Bassereau, et others. « Human ESCRT-III Polymers Assemble on Positively Curved Membranes and Induce Helical Membrane Tube Formation ». *BioRxiv*, 2019, 847319.
14. Bouchnak, Imen, Sabine Brugière, Lucas Moyet, Sophie Le Gall, Daniel Salvi, Marcel Kuntz, Marianne Tardif, et Norbert Rolland. « Unraveling hidden components of the chloroplast envelope proteome: opportunities and limits of better MS sensitivity ». *Molecular & Cellular Proteomics* 18, no 7 (2019): 1285–1306.
 15. Bougault, Catherine, Isabel Ayala, Waldemar Vollmer, Jean-Pierre Simorre, et Paul Schanda. « Studying intact bacterial peptidoglycan by proton-detected NMR spectroscopy at 100 kHz MAS frequency ». *Journal of structural biology* 206, no 1 (2019): 66–72.
 16. Bratanov, Dmitry, Kirill Kovalev, Jan-Philipp Machtens, Roman Astashkin, Igor Chizhov, Dmytro Soloviov, Dmytro Volkov, et al. « Unique structure and function of viral rhodopsins ». *Nature communications* 10, no 1 (2019): 1–13.
 17. Bresk, C Anika, Tamara Hofer, Sarah Wilmschen, Marina Krismer, Anja Beierfuß, Grégory Effantin, Winfried Weissenhorn, et al. « Induction of tier 1 HIV neutralizing antibodies by envelope trimers incorporated into a replication competent vesicular stomatitis virus vector ». *Viruses* 11, no 2 (2019): 159.
 18. Breton, Solène, Juliette Jouhet, Ulysse Guyet, Valérie Gros, Justine Pittera, David Demory, Frédéric Partensky, et al. « Unveiling membrane thermoregulation strategies in marine picocyanobacteria ». *New Phytologist*, 2019.
 19. Breyton, Cécile, Waqas Javed, Annelise Vermot, Charles-Adrien Arnaud, Christine Hajjar, Jérôme Dupuy, Isabelle Petit-Hartlein, et al. « Assemblies of lauryl maltose neopentyl glycol (LMNG) and LMNG-solubilized membrane proteins ». *Biochimica et Biophysica Acta (BBA)-Biomembranes* 1861, no 5 (2019): 939–957.
 20. Burt, Alister, C Keith Cassidy, Peter Ames, Maria Bacia-Verloop, Megghane Baulard, Karine Huard, Zaida Luthey-Schulten, et al. « Complete structure of the core signalling unit of the E. coli chemosensory array in an optimised minicell strain ». *BioRxiv*, 2019, 723692.
 21. Cabodevilla, Jaione Saez, Anne Volbeda, Olivier Hamelin, Jean-Marc Latour, Océane Gigarel, Martin Clémancey, Claudine Darnault, et al. « Design of specific inhibitors of quinolinate synthase based on [4Fe–4S] cluster coordination ». *Chemical communications* 55, no 26 (2019): 3725–3728.
 22. Calvez, Philippe, Juliette Jouhet, Véronique Vié, Claire Durmort, et André Zapun. « Lipid phases and cell geometry during the cell cycle of *Streptococcus pneumoniae* ». *Frontiers in microbiology* 10 (2019): 351.
 23. Carl, Nico, Sylvain Prévost, Ralf Schweins, Judith E Houston, Isabelle Morfin, et Klaus Huber. « Invertible Micelles Based on Ion-Specific Interactions of Sr²⁺ and Ba²⁺ with Double Anionic Block Copolyelectrolytes ». *Macromolecules* 52, no 22 (2019): 8759–8770.
 24. Chehade, Mahmoud Hajj, Ludovic Pelosi, Cameron David Fyfe, Laurent Loiseau, Bérengère Rascalou, Sabine Brugière, Katayoun Kazemzadeh, et al. « A soluble metabolon synthesizes the isoprenoid lipid ubiquinone ». *Cell chemical biology* 26, no 4 (2019): 482–492.
 25. Chevalier, Florian, Laura Cuyas, Juliette Jouhet, Valérie Gros, Serge Chiarenza, David Secco, James Whelan, et al. « Interplay between jasmonic acid, phosphate signaling and the regulation of glycerolipid homeostasis in *Arabidopsis* ». *Plant and Cell Physiology* 60, no 6 (2019): 1260–1273.
 26. Christou, Nina-Eleni, Isabel Ayala, Karine Giandoreggio-Barranco, Martin Byrdin, Virgile Adam, Dominique Bourgeois, et Bernhard Brutscher. « NMR reveals light-induced changes in the dynamics of a photoswitchable fluorescent protein ». *Biophysical journal* 117, no 11 (2019): 2087–2100.
 27. Clemente, Ilaria, Sara Falsini, Emanuela Di Cola, Giulia C Fadda, Cristina Gonnelli, Francesco Spinozzi, Maria Bacia-Verloop, Isabelle Grillo, et Sandra Ristori. « Green nanovectors for phytodrug delivery: in-depth structural and morphological characterization ». *ACS Sustainable Chemistry & Engineering* 7, no 15 (2019): 12838–12846.
 28. Colombo, Matteo, Ombeline Pessey, et Marco Marcia. « Topology and enzymatic properties of a canonical Polycomb repressive complex 1 isoform ». *FEBS letters* 593, no 14 (2019): 1837–1848.
 29. Cordeiro, Tiago N, Nathalie Sibille, Pierre Germain, Philippe Barthe, Abdelhay Boulahtouf, Frederic Allemand, Remy Bailly, et al. « Interplay of protein disorder in retinoic acid receptor heterodimer and its corepressor regulates gene expression ». *Structure* 27, no 8 (2019): 1270–1285.
 30. Dalzon, Bastien, Mélanie Guidetti, Denis Testemale, Solveig Reymond, Olivier Proux, Julien Vollaire, Véronique Collin-Faure, et al. « Utility of macrophages in an antitumor strategy based on the vectorization of iron oxide nanoparticles ». *Nanoscale* 11, no 19 (2019): 9341–9352.
 31. Darrieutort-Laffite, Christelle, Paul Arnolfo, Thomas Garraud, Annie Adrait, Yohann Couté, Guy Louarn, Valérie Trichet, Pierre Layrolle, Benoit Le Goff, et Frédéric Blanchard. « Rotator Cuff Tenocytes Differentiate into Hypertrophic Chondrocyte-Like Cells to Produce Calcium Deposits in an Alkaline Phosphatase-Dependent Manner ». *Journal of clinical medicine* 8, no 10 (2019): 1544.

32. De Zitter, Elke, Daniel Thédié, Viola Mönkemöller, Siewert Hugelier, Joël Beaudouin, Virgile Adam, Martin Byrdin, Luc Van Meervelt, Peter Dedecker, et Dominique Bourgeois. « Mechanistic investigation of mEos4b reveals a strategy to reduce track interruptions in sptPALM ». *Nature methods* 16, no 8 (2019): 707–710.
33. Debarnot, Claire, Yoan R Monneau, Veronique Roig-Zamboni, Vincent Delauzun, Christine Le Narvor, Emeline Richard, Jérôme Hénault, et al. « Substrate binding mode and catalytic mechanism of human heparan sulfate d-glucuronyl C5 epimerase ». *Proceedings of the National Academy of Sciences* 116, no 14 (2019): 6760–6765.
34. Decelle, Johan, Hryhoriy Stryhanyuk, Benoit Gallet, Giulia Veronesi, Matthias Schmidt, Sergio Balzano, Sophie Marro, et al. « Algal remodeling in a ubiquitous planktonic photosymbiosis ». *Current Biology* 29, no 6 (2019): 968–978.
35. Decelle, Johan, Giulia Veronesi, Benoit Gallet, Hryhoriy Stryhanyuk, Sophie Marro, Rémi Tucoulou, et Niculina Musat. « Visualization of the Ionome in Planktonic Symbioses ». *Microscopy and Microanalysis* 25, no S2 (2019): 1074–1075.
36. Dell’Aglia, Elisa, Cécile Giustini, Alexandra Kraut, Yohann Couté, Alex Costa, Guillaume Decros, Yves Gibon, et al. « Identification of the Arabidopsis calmodulin-dependent NAD⁺ kinase that sustains the elicitor-induced oxidative burst ». *Plant physiology* 181, no 4 (2019): 1449–1458.
37. Desfosses, Ambroise, Sigrid Milles, Malene Ringkjøbing Jensen, Serafima Guseva, Jacques-Philippe Colletier, Damien Maurin, Guy Schoehn, Irina Gutsche, Rob WH Ruigrok, et Martin Blackledge. « Assembly and cryo-EM structures of RNA-specific measles virus nucleocapsids provide mechanistic insight into paramyxoviral replication ». *Proceedings of the National Academy of Sciences* 116, no 10 (2019): 4256–4264.
38. Desfosses, Ambroise, Hariprasad Venugopal, Tapan Joshi, Jan Felix, Matthew Jessop, Hyengseop Jeong, Jaekyung Hyun, et al. « Atomic structures of an entire contractile injection system in both the extended and contracted states ». *Nature microbiology* 4, no 11 (2019): 1885–1894.
39. Desroches-Castan, Agnès, Emmanuelle Tillet, Nicolas Ricard, Marie Ouarné, Christine Mallet, Lucid Belmudes, Yohann Couté, et al. « Bone Morphogenetic Protein 9 Is a Paracrine Factor Controlling Liver Sinusoidal Endothelial Cell Fenestration and Protecting Against Hepatic Fibrosis ». *Hepatology* 70, no 4 (2019): 1392–1408.
40. Desroches-Castan, Agnès, Emmanuelle Tillet, Nicolas Ricard, Marie Ouarné, Christine Mallet, Jean-Jacques Feige, et Sabine Bailly. « Differential consequences of Bmp9 deletion on sinusoidal endothelial cell differentiation and liver fibrosis in 129/Ola and C57BL/6 mice ». *Cells* 8, no 9 (2019): 1079.
41. Dittami, Simon, Enrique Arboleda, Jean-Christophe Auguet, Arite Bigalke, Enora Briand, Paco Cárdenas, Ulisse Cardini, et al. « A community perspective on the concept of marine holobionts: state-of-the-art, challenges, and future directions ». *arXiv preprint arXiv:1907.05017*, 2019.
42. Djerbal, Lynda, Romain R Vivès, Chrystel Lopin-Bon, Ralf P Richter, Jessica CF Kwok, et Hugues Lortat-Jacob. « Semaphorin 3A binding to chondroitin sulfate E enhances the biological activity of the protein, and cross-links and rigidifies glycosaminoglycan matrices ». *BioRxiv*, 2019, 851121.
43. Donchet, Amélie, Justine Oliva, Alice Labaronne, Laura Tengo, Myriam Miloudi, Francine CA Gerard, Caroline Mas, et al. « The structure of the nucleoprotein of Influenza D shows that all Orthomyxoviridae nucleoproteins have a similar NP CORE, with or without a NP TAIL for nuclear transport ». *Scientific reports* 9, no 1 (2019): 1–14.
44. Elabbadi, Alexandre, Stéphane Pont, Charlotte Verdet, Patrick Plésiat, François Cretin, Guillaume Voiriot, Muriel Fartoukh, et Michel Djibré. « An unusual community-acquired invasive and multi systemic infection due to ExoU-harboring *Pseudomonas aeruginosa* strain: Clinical disease and microbiological characteristics ». *Journal of Microbiology, Immunology and Infection*, 2019.
45. Engilberge, Sylvain, Tristan Wagner, Gianluca Santoni, Cécile Breyton, Seigo Shima, Bruno Franzetti, Francois Riobé, Olivier Maury, et Eric Girard. « Protein crystal structure determination with the crystallophore, a nucleating and phasing agent ». *Journal of applied crystallography* 52, no 4 (2019).
46. Everts-Graber, Judith, Katherine R Martin, Nathalie Thieblemont, Julie Mocek, Arnaud Roccabianca, Philippe Chafey, Morgane Le Gall, et al. « Proteomic analysis of neutrophils in ANCA-associated vasculitis reveals a dysregulation in proteinase 3-associated proteins such as annexin-A1 involved in apoptotic cell clearance ». *Kidney international* 96, no 2 (2019): 397–408.
47. Fadhel, Nadia Ben, Luca Signor, Carlo Petosa, et Marjolaine Noirclerc-Savoye. « Phosphomimetic mutations modulate the ability of HIV-1 Rev to bind human Importin β in vitro ». *Matters* 5, no 4 (2019): e201903000032.
48. Favier, Adrien, et Bernhard Brutscher. « NMRlib: user-friendly pulse sequence tools for Bruker NMR spectrometers ». *Journal of biomolecular NMR* 73, no 5 (2019): 199–211.
49. Favier, Anne-Laure, Olivier Reynard, Evelyne Gout, Martin Van Eijk, Henk P Haagsman, Erika Crouch, Viktor

- Volchkov, Christophe Peyrefitte, et Nicole M Thielens. « Involvement of surfactant protein D in Ebola virus infection enhancement via glycoprotein interaction ». *Viruses* 11, no 1 (2019): 15.
50. Felix, Jan, Katharina Weinhäupl, Christophe Chipot, François Dehez, Audrey Hessel, Diego F Gauto, Cecile Morlot, et al. « Mechanism of the allosteric activation of the ClpP protease machinery by substrates and active-site inhibitors ». *Science advances* 5, no 9 (2019): eaaw3818.
51. Fenwick, Craig, Juan-Luis Loredó-Varela, Victor Joo, Céline Pellaton, Alex Farina, Navina Rajah, Line Esteves-Leuenberger, et al. « Tumor suppression of novel anti-PD-1 antibodies mediated through CD28 costimulatory pathway ». *Journal of Experimental Medicine* 216, no 7 (2019): 1525–1541.
52. Floc'h, Kevin, Françoise Lacroix, Pascale Servant, Yung-Sing Wong, Jean-Philippe Kleman, Dominique Bourgeois, et Joanna Timmins. « Cell morphology and nucleoid dynamics in dividing *Deinococcus radiodurans* ». *Nature communications* 10, no 1 (2019): 1–13.
53. Gabel, Frank, Sylvain Engilberge, Javier Pérez, et Eric Girard. « Medical contrast media as possible tools for SAXS contrast variation ». *IUCrJ* 6, no 4 (2019).
54. García-Rodríguez, Fernando M, José L Neira, Marco Marcia, María D Molina-Sánchez, et Nicolás Toro. « A group II intron-encoded protein interacts with the cellular replicative machinery through the β -sliding clamp ». *Nucleic acids research* 47, no 14 (2019): 7605–7617.
55. Gauto, Diego F, Leandro F Estrozi, Charles D Schwieters, Gregory Effantin, Pavel Macek, Remy Sounier, Astrid C Sivertsen, et al. « Integrated NMR and cryo-EM atomic-resolution structure determination of a half-megadalton enzyme complex ». *Nature communications* 10, no 1 (2019): 1–12.
56. Gauto, Diego F, Pavel Macek, Alessandro Barducci, Hugo Fraga, Audrey Hessel, Tsutomu Terauchi, David Gajan, et al. « Aromatic ring dynamics, thermal activation, and transient conformations of a 468 kDa enzyme by specific ^1H – ^{13}C labeling and fast magic-angle spinning NMR ». *Journal of the American Chemical Society* 141, no 28 (2019): 11183–11195.
57. Geissner, Andreas, Anika Reinhardt, Christoph Rademacher, Timo Johannssen, João Monteiro, Bernd Lepenies, Michel Thépaut, et al. « Microbe-focused glycan array screening platform ». *Proceedings of the National Academy of Sciences* 116, no 6 (2019): 1958–1967.
58. Gérard, Francine C, Marc Jamin, Martin Blackledge, Danielle Blondel, et Jean-Marie Bourhis. « Vesicular stomatitis virus phosphoprotein dimerization domain is dispensable for virus growth ». *Journal of virology*, 2019.
59. Giustini, Cecile, Matthieu Graindorge, David Cobessi, Serge Cruzy, Adeline Robin, Gilles Curien, et Michel Matringe. « Tyrosine metabolism: identification of a key residue in the acquisition of prephenate aminotransferase activity by 1β aspartate aminotransferase ». *The FEBS journal* 286, no 11 (2019): 2118–2134.
60. Gotthard, Guillaume, Sylvain Aumonier, Daniele De Sanctis, Gordon Leonard, David von Stetten, et Antoine Royant. « Specific radiation damage is a lesser concern at room temperature ». *IUCrJ* 6, no 4 (2019).
61. Gröbner, Rebekka, Ines Kapferer-Seebacher, Albert Amberger, Rita Redolfi, Fabien Dalonneau, Erik Björck, Di Milnes, et al. « C1R mutations trigger constitutive complement 1 activation in periodontal Ehlers-Danlos syndrome ». *Frontiers in immunology* 10 (2019): 2537.
62. Guillet, Pierre, Florian Mahler, Kelly Garnier, Gildas Nyame Mendendy Boussambe, Sébastien Igonet, Carolyn Vargas, Christine Ebel, et al. « Hydrogenated diglucose detergents for membrane-protein extraction and stabilization ». *Langmuir* 35, no 12 (2019): 4287–4295.
63. Gupta, Rupal, Huilan Zhang, Manman Lu, Guangjin Hou, Marc Caporini, Melanie Rosay, Werner Maas, et al. « Dynamic Nuclear Polarization Magic-Angle Spinning Nuclear Magnetic Resonance Combined with Molecular Dynamics Simulations Permits Detection of Order and Disorder in Viral Assemblies ». *The Journal of Physical Chemistry B* 123, no 24 (2019): 5048–5058.
64. Gupton, Stephanie L, Kunikazu Tanji, Joubert Bastien, Sabine Brugière, Yohann Couté, Isabelle Quadrio, Veronique Rogemond, et al. « TRIM9 and TRIM67 are new targets in paraneoplastic cerebellar degeneration ». *The Cerebellum* 18, no 2 (2019): 245–254.
65. Gusach, Anastasiia, Aleksandra Luginina, Egor Marin, Rebecca L Brouillette, Élie Besserer-Offroy, Jean-Michel Longpré, Andrii Ishchenko, et al. « Structural basis of ligand selectivity and disease mutations in cysteinyl leukotriene receptors ». *Nature Communications* 10, no 1 (2019): 1–9.
66. Guseva, Serafima, Sigrid Milles, Martin Blackledge, et Rob WH Ruigrok. « The nucleoprotein and phosphoprotein of measles virus. » *Frontiers in microbiology* 10 (2019): 1832.
67. Howard, S Peter, Leandro F Estrozi, Quentin Bertrand, Carlos Contreras-Martel, Timothy Strozen, Viviana Job, Alexandre Martins, Daphna Fenel, Guy Schoehn, et Andréa Dessen. « Structure and assembly of pilotin-dependent

- and-independent secretins of the type II secretion system ». *PLoS pathogens* 15, no 5 (2019): e1007731.
68. Jacob, Laurent, Florence Combes, et Thomas Burger. « PEPA test: fast and powerful differential analysis from relative quantitative proteomics data using shared peptides ». *Biostatistics* 20, no 4 (2019): 632–647.
 69. Job, Viviana, Stéphanie Bouillot, Erwan Gueguen, Mylène Robert-Genthon, Peter Panchev, Sylvie Elsen, et Ina Attrée. « Pseudomonas two-partner secretion toxin Exolysin contributes to insect killing ». *bioRxiv*, 2019, 807867.
 70. Kandiah, Eazhisai, Diego Carriel, Pierre Simon Garcia, Jan Felix, Manuel Banzhaf, George Kritikos, Maria Bacia-Verloop, Céline Brochier-Armanet, Sylvie Elsen, et Irina Gutsche. « Structure, Function, and Evolution of the Pseudomonas aeruginosa Lysine Decarboxylase LdcA ». *Structure* 27, no 12 (2019): 1842–1854.
 71. Kerjouan, Adèle, Cyril Boyault, Christiane Oddou, Edwige Hiriart-Bryant, Alexei Grichine, Alexandra Kraut, Mylène Pezet, et al. « Molecular flux control encodes distinct cytoskeletal responses by specifying SRC signaling pathway usage ». *bioRxiv*, 2019, 648030.
 72. Kopera, Edyta, Konrad Zdanowski, Karolina Uranowska, Piotr Kosson, Violetta Sączyńska, Katarzyna Florys, et Bogusław Szewczyk. « High-titre neutralizing antibodies to H1N1 influenza virus after mouse immunization with yeast expressed H1 antigen: a promising influenza vaccine candidate ». *Journal of immunology research* 2019 (2019).
 73. Kovalev, Kirill, Vitaly Polovinkin, Ivan Gushchin, Alexey Alekseev, Vitaly Shevchenko, Valentin Borshchevskiy, Roman Astashkin, et al. « Structure and mechanisms of sodium-pumping KR2 rhodopsin ». *Science advances* 5, no 4 (2019): eaav2671.
 74. Kraut, Alexandra, Mathilde Louwagie, Christophe Bruley, Christophe Masselon, Yohann Couté, Virginie Brun, et Anne-Marie Hesse. « Protein biomarker discovery in non-depleted serum by spectral library-based data-independent acquisition mass spectrometry ». In *Proteomics for Biomarker Discovery*, 129–150. Springer, 2019.
 75. Kubáň, Vojtěch, Pavel Srb, Hana Stegnerova, Petr Padrta, Milan Zachrdla, Zuzana Jaseňáková, Hana Šanderová, et al. « Quantitative Conformational Analysis of Functionally Important Electrostatic Interactions in the Intrinsically Disordered Region of Delta Subunit of Bacterial RNA Polymerase ». *Journal of the American Chemical Society* 141, no 42 (2019): 16817–16828.
 76. Kufareva, Irina, Benoit Bestgen, Paul Brear, Renaud Prudent, Béatrice Laudet, Virginie Moucadel, Mohamed Ettaoussi, et al. « Discovery of holoenzyme-disrupting chemicals as substrate-selective CK2 inhibitors ». *Scientific reports* 9, no 1 (2019): 1–16.
 77. Laddomada, Federica, Mayara M Miyachiro, Matthew Jessop, Delphine Patin, Viviana Job, Dominique Mengin-Lecreulx, Aline Le Roy, et al. « The MurG glycosyltransferase provides an oligomeric scaffold for the cytoplasmic steps of peptidoglycan biosynthesis in the human pathogen Bordetella pertussis ». *Scientific reports* 9, no 1 (2019): 1–17.
 78. Lai, Xuelei, Arnaud Stigliani, Gilles Vachon, Cristel Carles, Cezary Smaczniak, Chloe Zubieta, Kerstin Kaufmann, et François Parcy. « Building transcription factor binding site models to understand gene regulation in plants ». *Molecular plant* 12, no 6 (2019): 743–763.
 79. Legendre, Matthieu, Jean-Marie Alempic, Nadège Philippe, Audrey Lartigue, Sandra Jeudy, Olivier Poirot, Ngan Thi Ta, et al. « Pandoravirus celtis illustrates the microevolution processes at work in the giant Pandoraviridae genomes ». *Frontiers in microbiology* 10 (2019): 430.
 80. Lespinats, Sylvain, Olivier De Clerck, Benoît Colange, Vera Gorelova, Delphine Grando, Eric Maréchal, Dominique Van Der Straeten, Fabrice Rébeillé, et Olivier Bastien. « Phylogeny and Sequence Space: A Combined Approach to Analyze the Evolutionary Trajectories of Homologous Proteins. The Case Study of Aminodeoxychorismate Synthase ». *Acta Biotheoretica*, 2019, 1–18.
 81. Li, Rui-Jun, Eveline, Tim P Hogervorst, Silvia Achilli, Sven C Bruijns, Tim Arnoldus, Corinne Vivès, Chung C Wong, et al. « Systematic dual targeting of dendritic cell C-type Lectin Receptor DC-SIGN and TLR7 using a trifunctional mannosylated antigen ». *Frontiers in chemistry* 7 (2019): 650.
 82. Liebl, David, Mylène Robert-Genthon, Viviana Job, Valentina Cogoni, et Ina Attrée. « Baseplate component TssK and spatio-temporal assembly of T6SS in Pseudomonas aeruginosa ». *Frontiers in microbiology* 10 (2019): 1615.
 83. Lis, Robert van, Sabine Brugière, Carole Baffert, Yohann Couté, Wolfgang Nitschke, et Ariane Atteia. « Hybrid cluster proteins in a photosynthetic microalga ». *The FEBS journal*, 2019.
 84. Lombardi, Charlotte, James Tolchard, Stephanie Bouillot, Luca Signor, Caroline Gebus, David Liebl, Daphna Fenel, et al. « Structural and functional characterization of the Type Three Secretion System (T3SS) needle of Pseudomonas aeruginosa ». *Frontiers in microbiology* 10 (2019): 573.
 85. Luginina, Aleksandra, Anastasiia Gusach, Egor Marin, Alexey Mishin, Rebecca Brouillette, Petr Popov, Anna

- Shiriaeva, et al. « Structure-based mechanism of cysteinyl leukotriene receptor inhibition by antiasthmatic drugs ». *Science advances* 5, no 10 (2019): eaax2518.
86. Maalej, Meriem, Rosa Ester Forgione, Roberta Marchetti, François Bulteau, Michel Thépaut, Rosa Lanzetta, Cedric Laguri, et al. « Human Macrophage Galactose-Type Lectin (MGL) Recognizes the Outer Core of Escherichia coli Lipooligosaccharide ». *ChemBioChem* 20, no 14 (2019): 1778–1782.
87. Maity, Sourav, Christophe Caillat, Nolwenn Miguët, Guidenn Sulbaran, Gregory Effantin, Guy Schoehn, Wouter H Roos, et Winfried Weissenhorn. « VPS4 triggers constriction and cleavage of ESCRT-III helical filaments ». *Science advances* 5, no 4 (2019): eaau7198.
88. Marabelli, Chiara, Biagina Marrocco, Simona Pilotto, Sagar Chittori, Sarah Picaud, Sara Marchese, Giuseppe Ciossani, et al. « A tail-based mechanism drives nucleosome demethylation by the LSD2/NPAC multimeric complex ». *Cell reports* 27, no 2 (2019): 387–399.
89. Maréchal, Eric. « Marine and freshwater plants: challenges and expectations ». *Frontiers in Plant Science* 10 (2019): 1545.
90. Maréchal, Eric, et Josselin Lupette. « Relationship between acyl-lipid and sterol metabolisms in diatoms ». *Biochimie*, 2019.
91. Marin-Montesinos, Ildefonso, David Goyard, Emilie Gillon, Olivier Renaudet, Anne Imberty, Sabine Hediger, et Gaël De Paëpe. « Selective high-resolution DNP-enhanced NMR of biomolecular binding sites ». *Chemical science* 10, no 11 (2019): 3366–3374.
92. Marion, Dominique, Diego F Gauto, Isabel Ayala, Karine Giandoreggio-Barranco, et Paul Schanda. « Microsecond Protein Dynamics from Combined Bloch-McConnell and Near-Rotary-Resonance R1p Relaxation-Dispersion MAS NMR ». *ChemPhysChem* 20, no 2 (2019): 276–284.
93. Martin-Arevalillo, Raquel, Emmanuel Thévenon, Fanny Jégu, Thomas Vinos-Poyo, Teva Vernoux, François Parcy, et Renaud Dumas. « Evolution of the auxin response factors from charophyte ancestors ». *PLoS genetics* 15, no 9 (2019): e1008400.
94. Medve, Laura, Silvia Achilli, Joan Guzman-Caldentey, Michel Thépaut, Luca Senaldi, Aline Le Roy, Sara Sattin, et al. « Enhancing potency and selectivity of a DC-SIGN glycomimetic ligand by fragment-based design: structural basis ». *Chemistry—A European Journal* 25, no 64 (2019): 14659–14668.
95. Merk, Vivian, Johan Decelle, Si Chen, Antonio Lanzirotti, Matthew Newville, Olga Antipova, et Derk Joester. « Selective Ion Accumulation in Biomineralizing Marine Acantharia ». *Microscopy and Microanalysis* 25, no S2 (2019): 1072–1073.
96. Michaud, Morgane, et Juliette Jouhet. « Lipid trafficking at membrane contact sites during plant development and stress response ». *Frontiers in plant science* 10 (2019): 2.
97. Miyachiro, Mayara M, Daniela Granato, Daniel Maragno Trindade, Christine Ebel, Adriana Franco Paes Leme, et Andréa Dessen. « Complex formation between Mur enzymes from *Streptococcus pneumoniae* ». *Biochemistry* 58, no 30 (2019): 3314–3324.
98. Mizuta, Ryo, Juliette M Devos, Theyencheri Narayanan, Mizar Oliva, Melissa Gray, Jessica Webster, Wai-Li Ling, et al. « Hierarchical Nanotube Self-Assembly of DNA Minor Groove-Binding Ligand DB921 via Alkali Halide Triggering ». In *Macromolecular Symposia*, 386:1800243. Wiley Online Library, 2019.
99. Montanier, Cédric Y, Mathieu Fanuel, Héléne Rogniaux, David Ropartz, Anne-Marie Di Guilmi, et Antoine Bouchoux. « Changing surface grafting density has an effect on the activity of immobilized xylanase towards natural polysaccharides ». *Scientific reports* 9, no 1 (2019): 1–12.
100. Morabito, Christian, Caroline Bournaud, Cécile Maës, Martin Schuler, Riccardo Aiese Cigliano, Younès Dello, Eric Maréchal, Alberto Amato, et Fabrice Rébeillé. « The lipid metabolism in thraustochytrids ». *Progress in lipid research*, 2019, 101007.
101. Moulin, M, E Mossou, L Signor, S Kieffer-Jaquinod, HM Kwaambwa, F Nermark, P Gutfreund, et al. « Towards a molecular understanding of the water purification properties of Moringa seed proteins ». *Journal of colloid and interface science* 554 (2019): 296–304.
102. Moyet, Lucas, Daniel Salvi, Imen Bouchnak, Stéphane Miras, Laura Perrot, Daphné Seigneurin-Berny, Marcel Kuntz, et Norbert Rolland. « Calmodulin is involved in the dual subcellular location of two chloroplast proteins ». *Journal of Biological Chemistry* 294, no 46 (2019): 17543–17554.
103. Nader, Serge, J Pérard, P Carpentier, L Arnaud, Serge Crouzy, et Isabelle Michaud-Soret. « New insights into the tetrameric family of the Fur metalloregulators ». *BioMetals* 32, no 3 (2019): 501–519.
104. Ngo, Tuan-Dung, Sophie Plé, Aline Thomas, Caroline Barette, Antoine Fortuné, Younes Bouzidi, Marie-Odile

- Fauvarque, et al. « Chimeric Protein–Protein Interface Inhibitors Allow Efficient Inhibition of Type III Secretion Machinery and *Pseudomonas aeruginosa* Virulence ». *ACS infectious diseases* 5, no 11 (2019): 1843–1854.
105. Nguyen, Lien, Virginie Brun, Florence Combes, Valentin Loux, et Yves Vandenbrouck. « Designing an In Silico Strategy to Select Tissue-Leakage Biomarkers Using the Galaxy Framework ». In *Proteomics for Biomarker Discovery*, 275–289. Springer, 2019.
106. Ohayon, Delphine, Alessia De Chiara, Pham My-Chan Dang, Nathalie Thieblemont, Simon Chatfield, Viviana Marzaioli, Sabrina Sofia Burgener, et al. « Cytosolic PCNA interacts with p47phox and controls NADPH oxidase NOX2 activation in neutrophils ». *Journal of Experimental Medicine* 216, no 11 (2019): 2669–2687.
107. Pagliuso, Alessandro, To Nam Tham, Eric Allemand, Stevens Robertin, Bruno Dupuy, Quentin Bertrand, Christophe Becavin, et al. « An RNA-Binding Protein Secreted by a Bacterial Pathogen Modulates RIG-I Signaling ». *Cell host & microbe* 26, no 6 (2019): 823–835.
108. Picchioni, Daria, Albert Antolin-Fontes, Noelia Camacho, Claus Schmitz, Alba Pons-Pons, Marta Rodríguez-Escribà, Antogni Machallekidou, et al. « Mitochondrial protein synthesis and mtDNA levels coordinated through an aminoacyl-tRNA synthetase subunit ». *Cell reports* 27, no 1 (2019): 40–47.
109. Pinto, Dora, Craig Fenwick, Christophe Caillat, Chiara Silacci, Serafima Guseva, Francois Dehez, Christophe Chipot, et al. « Structural Basis for Broad HIV-1 Neutralization by the MPER-Specific Human Broadly Neutralizing Antibody LN01 ». *Cell host & microbe* 26, no 5 (2019): 623–637.
110. Porkolab, Vanessa, Carlo Pifferi, Ieva Sutkeviciute, Stefania Ordanini, Marwa Taouai, Michel Thepaut, Corinne Vivès, et al. « Development of c-type lectin oriented surfaces for high avidity glycoconjugates: towards mimicking multivalent interactions on the cell surface ». *BioRxiv*, 2019, 780452.
111. Pralon, Thibaut, Venkatasalam Shanmugabalaji, Paolo Longoni, Gaétan Glauser, Brigitte Ksas, Joy Collombat, Saskia Desmeules, Michel Havaux, Giovanni Finazzi, et Felix Kessler. « Plastoquinone homeostasis by *Arabidopsis* proton gradient regulation 6 is essential for photosynthetic efficiency ». *Communications biology* 2, no 1 (2019): 1–11.
112. Randich, Amelia M, David T Kysela, Cécile Morlot, et Yves V Brun. « Origin of a Core Bacterial Gene via Co-option and Detoxification of a Phage Lysin ». *Current Biology* 29, no 10 (2019): 1634–1646.
113. Rataj, Felicitas, Séverine Planel, Josiane Denis, Caroline Roelants, Odile Filhol, Laurent Guyon, Jean-Jacques Feige, et Nadia Cherradi. « Targeting AU-rich element-mediated mRNA decay with a truncated active form of the zinc-finger protein TIS11b/BRF1 impairs major hallmarks of mammary tumorigenesis ». *Oncogene* 38, no 26 (2019): 5174–5190.
114. Roche, Jennifer, Eric Girard, Caroline Mas, et Dominique Madern. « The archaeal LDH-like malate dehydrogenase from *Ignicoccus islandicus* displays dual substrate recognition, hidden allostery and a non-canonical tetrameric oligomeric organization ». *Journal of structural biology* 208, no 1 (2019): 7–17.
115. Salvador, Dimitri, Marie Glavier, Guy Schoehn, Gilles Phan, Jean-Christophe Taveau, Marion Decossas, Sophie Lecomte, et al. « Minimal nanodisc without exogenous lipids for stabilizing membrane proteins in detergent-free buffer ». *Biochimica et Biophysica Acta (BBA)-Biomembranes* 1861, no 4 (2019): 852–860.
116. Salvi, Nicola, Anton Abyzov, et Martin Blackledge. « Solvent-dependent segmental dynamics in intrinsically disordered proteins ». *Science advances* 5, no 6 (2019): eaax2348.
117. Seffouh, Amal, Rana El Masri, Olga Makshakova, Evelyne Gout, Zahra el Oula Hassoun, Jean-Pierre Andrieu, Hugues Lortat-Jacob, et Romain R Vivès. « Expression and purification of recombinant extracellular sulfatase HSulf-2 allows deciphering of enzyme sub-domain coordinated role for the binding and 6-O-desulfation of heparan sulfate ». *Cellular and molecular life sciences* 76, no 9 (2019): 1807–1819.
118. Serre, Nelson BC, Claude Alban, Jacques Bourguignon, et Stéphane Ravanel. « Uncovering the physiological and cellular effects of uranium on the root system of *Arabidopsis thaliana* ». *Environmental and experimental botany* 157 (2019): 121–130.
119. Serre, Nelson BC, Manon Sarthou, Océane Gigarel, Sylvie Figuet, Massimiliano Corso, Justine Choulet, Valérie Rofidal, et al. « Evidence for the involvement of protein lysine methylation in the response of sensitive and tolerant *Arabidopsis* species to cadmium stress ». *bioRxiv*, 2019, 652651.
120. Siebert, Claire, Helena Lindgren, Sabrina Ferré, Corinne Villers, Sandrine Boisset, Julien Perard, Anders Sjöstedt, et al. « *Francisella tularensis*: FupA mutation contributes to fluoroquinolone resistance by increasing vesicle secretion and biofilm formation ». *Emerging microbes & infections* 8, no 1 (2019): 808–822.
121. Silvestre-Roig, Carlos, Quinte Braster, Kanin Wichapong, Ernest Y Lee, Jean Marie Teulon, Nihel Berrebeh, Janine Winter, et al. « Externalized histone H4 orchestrates chronic inflammation by inducing lytic cell death ». *Nature* 569, no 7755 (2019): 236–240.

122. Stigliani, Arnaud, Raquel Martin-Arevalillo, Jérémy Lucas, Adrien Bessy, Thomas Vinos-Poyo, Victoria Mironova, Teva Vernoux, Renaud Dumas, et François Parcy. « Capturing auxin response factors syntax using DNA binding models ». *Molecular plant* 12, no 6 (2019): 822–832.
123. Strokappe, Nika M, Miriam Hock, Lucy Rutten, Laura E Mccoy, Jaap W Back, Christophe Caillat, Matthias Haffke, Robin A Weiss, Winfried Weissenhorn, et Theo Verrips. « Super potent bispecific llama VHH antibodies neutralize HIV via a combination of gp41 and gp120 epitopes ». *Antibodies* 8, no 2 (2019): 38.
124. Suárez, Vanessa Tardillo, Elizaveta Karepina, Mireille Chevallet, Benoit Gallet, Cecile Cottet-Rousselle, Peggy Charbonnier, Christine Moriscot, et al. « Visualization of silver nanoparticle intracellular trafficking revealed nuclear translocation of silver ions leading to nuclear receptor impairment ». *BioRxiv*, 2019, 825919.
125. Taouai, Marwa, Vanessa Porkolab, Khoulood Chakroun, Coraline Cheneau, Joanna Luczkowiak, Rym Abidi, David Lesur, et al. « Unprecedented Thiocalixarene Fucoclusters as Strong Inhibitors of Ebola cis-Cell Infection and HCMV-gB Glycoprotein/DC-SIGN C-type Lectin Interaction ». *Bioconjugate chemistry* 30, no 4 (2019): 1114–1126.
126. Tarantini, Adeline, K David Wegner, Fanny Dussert, Géraldine Sarret, David Beal, Lucia Mattera, Christophe Lincheneau, et al. « Physicochemical alterations and toxicity of InP alloyed quantum dots aged in environmental conditions: A safer by design evaluation ». *NanoImpact* 14 (2019): 100168.
127. Teulon, Jean-Marie, Christian Godon, Louis Chantalat, Christine Moriscot, Julien Cambedouzou, Michael Odorico, Johann Ravaux, et al. « On the Operational Aspects of Measuring Nanoparticle Sizes ». *Nanomaterials* 9, no 1 (2019): 18.
128. Torra, Joaquim, Céline Lafaye, Luca Signor, Sylvain Aumonier, Cristina Flors, Xiaokun Shu, Santi Nonell, Guillaume Gotthard, et Antoine Royant. « Tailing miniSOG: structural bases of the complex photophysics of a flavin-binding singlet oxygen photosensitizing protein ». *Scientific reports* 9, no 1 (2019): 1–10.
129. Uroda, Tina, Eleni Anastasakou, Annalisa Rossi, Jean-Marie Teulon, Jean-Luc Pellequer, Paolo Annibale, Ombeline Pessey, Alberto Inga, Isabel Chillón, et Marco Marcia. « Conserved pseudoknots in lncRNA MEG3 are essential for stimulation of the p53 pathway ». *Molecular cell* 75, no 5 (2019): 982–995.
130. Vallet, Alicia, Adrien Favier, et Bernhard Brutscher. « Aromatic SOFAST-HMBC for proteins at natural ¹³C abundance ». *Journal of Magnetic Resonance* 300 (2019): 95–102.
131. Vassal-Stermann, Emilie, Gregory Effantin, Chloe Zubieta, Wim Burmeister, Frédéric Iseni, Hongjie Wang, André Lieber, Guy Schoehn, et Pascal Fender. « CryoEM structure of adenovirus type 3 fibre with desmoglein 2 shows an unusual mode of receptor engagement ». *Nature communications* 10, no 1 (2019): 1–7.
132. Vassal-Stermann, Emilie, Stephanie Hutin, Pascal Fender, et Wim P Burmeister. « Intermediate-resolution crystal structure of the human adenovirus B serotype 3 fibre knob in complex with the EC2-EC3 fragment of desmoglein 2 ». *Acta Crystallographica Section F: Structural Biology Communications* 75, no 12 (2019).
133. Veronesi, Giulia, Maria Moros, Hiram Castillo-Michel, Lucia Mattera, Giada Onorato, Karl David Wegner, Wai Li Ling, Peter Reiss, et Claudia Tortiglione. « In Vivo Biotransformations of Indium Phosphide Quantum Dots Revealed by X-Ray Microspectroscopy ». *ACS applied materials & interfaces* 11, no 39 (2019): 35630–35640.
134. Verschueren, Koen HG, Clement Blanchet, Jan Felix, Ann Dansercoer, Dirk De Vos, Yehudi Bloch, Jozef Van Beeumen, et al. « Structure of ATP citrate lyase and the origin of citrate synthase in the Krebs cycle ». *Nature* 568, no 7753 (2019): 571–575.
135. Vlasov, AV, KV Kovalev, S-H Marx, ES Round, I Yu Gushchin, VA Polovinkin, NM Tsoy, et al. « Unusual features of the c-ring of F₁FO ATP synthases ». *Scientific Reports* 9, no 1 (2019): 1–11.
136. Volbeda, Anne, Ma Teresa Pellicer Martinez, Jason C Crack, Patricia Amara, Océane Gigarel, John T Munnoch, Matthew I Hutchings, Claudine Darnault, Nick E Le Brun, et Juan C Fontecilla-Camps. « Crystal Structure of the Transcription Regulator RsrR Reveals a [2Fe–2S] Cluster Coordinated by Cys, Glu, and His Residues ». *Journal of the American Chemical Society* 141, no 6 (2019): 2367–2375.
137. Vragliau, Charles, Joshua C Bufton, Frédéric Garzoni, Emilie Stermann, Fruzsina Rabi, Céline Terrat, Mélanie Guidetti, et al. « Synthetic self-assembling ADDomer platform for highly efficient vaccination by genetically encoded multiepitope display ». *Science advances* 5, no 9 (2019): eaaw2853.
138. Waldie, Sarah, Martine Moulin, Lionel Porcar, Harald Pichler, Gernot A Strohmeier, Maximilian Skoda, V Trevor Forsyth, Michael Haertlein, Selma Maric, et Marité Cárdenas. « the production of Matchout-Deuterated Cholesterol and the study of Bilayer-Cholesterol Interactions ». *Scientific reports* 9, no 1 (2019): 1–11.
139. Wegner, K David, Stéphanie Pouget, Wai Li Ling, Marie Carrière, et Peter Reiss. « Gallium—a versatile element for tuning the photoluminescence properties of InP quantum dots ». *Chemical communications* 55, no 11 (2019): 1663–1666.

140. Wegner, Karl David, Fanny Dussert, Delphine Truffier-Boutry, Anass Benayad, David Beal, Lucia Mattera, Wai Li Ling, Marie Carrière, et Peter Reiss. « Influence of the core/shell structure of indium phosphide based quantum dots on their photostability and cytotoxicity ». *Frontiers in chemistry* 7 (2019): 466.
141. Wiczorek, Samuel, Florence Combes, Hélène Borges, et Thomas Burger. « Protein-level statistical analysis of quantitative label-free proteomics data with ProStaR ». In *Proteomics for Biomarker Discovery*, 225–246. Springer, 2019.
142. Wiczorek, Samuel, Quentin Gai Gianetto, et Thomas Burger. « Five simple yet essential steps to correctly estimate the rate of false differentially abundant proteins in mass spectrometry analyses ». *Journal of proteomics* 207 (2019): 103441.
143. Yee, Ai Woon, Matteo Aldeghi, Matthew P Blakeley, Andreas Ostermann, Philippe J Mas, Martine Moulin, Daniele de Sanctis, et al. « A molecular mechanism for transthyretin amyloidogenesis ». *Nature communications* 10, no 1 (2019): 1–10.