# Phase separation drives heterochromatin domain forma

Nature

547, 241-245

DOI: 10.1038/nature22989

Citation Report

| # | Article | IF | Citations |
|---|---|---|---|
| 2 | Liquid droplet formation by HP1Î± suggests a role for phase separation in heterochromatin. Nature, 2017, 547, 236-240. | 13.7 | 1,351 |
| 3 | A liquid reservoir for silent chromatin. Nature, 2017, 547, 168-169. | 13.7 | 20 |
| 4 | Non-coding RNAs demystify constitutive heterochromatin as essential modulator of epigenotype. Nucleus (India), 2017, 60, 299-314. | 0.9 | 8 |
| 5 | De novo prediction of human chromosome structures: Epigenetic marking patterns encode genome architecture. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12126-12131. | 3.3 | 193 |
| 6 | Cohesin Loss Eliminates All Loop Domains. Cell, 2017, 171, 305-320.e24. | 13.5 | 1,454 |
| 7 | Condensin II plays an essential role in reversible assembly of mitotic chromosomes in situ. Molecular Biology of the Cell, 2017, 28, 2875-2886. | 0.9 | 29 |
| 8 | Ki-67 and the Chromosome Periphery Compartment in Mitosis. Trends in Cell Biology, 2017, 27, 906-916. | 3.6 | 57 |
| 9 | Evolving Models of Heterochromatin: From Foci to Liquid Droplets. Molecular Cell, 2017, 67, 725-727. | 4.5 | 23 |
| 10 | All-Aqueous Assemblies via Interfacial Complexation: Toward Artificial Cell and Microniche Development. Langmuir, 2017, 33, 10107-10117. | 1.6 | 37 |
| 11 | Liquid phase condensation in cell physiology and disease. Science, 2017, 357, . | 6.0 | 2,699 |
| 12 | Disruption of an RNA-binding hinge region abolishes LHP1-mediated epigenetic repression. Genes and Development, 2017, 31, 2115-2120. | 2.7 | 33 |
| 13 | Genomic and Proteomic Resolution of Heterochromatin and Its Restriction of Alternate Fate Genes. Molecular Cell, 2017, 68, 1023-1037.e15. | 4.5 | 159 |
| 14 | Potential Role of Phase Separation of Repetitive DNA in Chromosomal Organization. Genes, 2017, 8, 279. | 1.0 | 20 |
| 15 | Single-molecule kinetic analysis of HP1-chromatin binding reveals a dynamic network of histone modification and DNA interactions. Nucleic Acids Research, 2017, 45, 10504-10517. | 6.5 | 49 |
| 16 | The multidimensional mechanisms of long noncoding RNA function. Genome Biology, 2017, 18, 206. | 3.8 | 802 |
| 17 | Chromatin organization changes during the establishment and maintenance of the postmitotic state. Epigenetics and Chromatin, 2017, 10, 53. | 1.8 | 15 |
| 18 | Nuclear phosphatidylinositol 4,5-bisphosphate islets contribute to efficient RNA polymerase II-dependent transcription. Journal of Cell Science, 2018, 131, . | 1.2 | 35 |
| 19 | It Pays To Be in Phase. Biochemistry, 2018, 57, 2520-2529. | 1.2 | 32 |

| # | Article | IF | Citations |
|---|---|---|---|
| 20 | TAR DNA-binding protein 43 (TDP-43) liquidâ€"liquid phase separation is mediated by just a few aromatic residues. Journal of Biological Chemistry, 2018, 293, 6090-6098. | 1.6 | 195 |
| 21 | Local raster image correlation spectroscopy generates high-resolution intracellular diffusion maps. Communications Biology, 2018, 1, 10. | 2.0 | 37 |
| 22 | <scp>HP</scp> 1Î± targets the chromosomal passenger complex for activation at heterochromatin before mitotic entry. EMBO Journal, 2018, 37, . | 3.5 | 36 |
| 23 | Assessing sufficiency and necessity of enhancer activities for gene expression and the mechanisms of transcription activation. Genes and Development, 2018, 32, 202-223. | 2.7 | 171 |
| 24 | Fat nucleosome: Role of lipids on chromatin. Progress in Lipid Research, 2018, 70, 29-34. | 5.3 | 16 |
| 25 | Genome organization at different scales: nature, formation and function. Current Opinion in Cell Biology, 2018, 52, 145-153. | 2.6 | 23 |
| 26 | Formation of Chromatin Subcompartments byÂPhase Separation. Biophysical Journal, 2018, 114, 2262-2270. | 0.2 | 295 |
| 27 | Controlling compartmentalization by non-membrane-bound organelles. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170193. | 1.8 | 132 |
| 28 | The Role of Phase Separation in Heterochromatin Formation, Function, and Regulation. Biochemistry, 2018, 57, 2540-2548. | 1.2 | 144 |
| 29 | A Discontinuous Galerkin Model for Fluorescence Loss in Photobleaching. Scientific Reports, 2018, 8, 1387. | 1.6 | 4 |
| 30 | Pivotal roles of PCNA loading and unloading in heterochromatin function. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2030-E2039. | 3.3 | 38 |
| 31 | Epigenomics in 3D: importance of long-range spreading and specific interactions in epigenomic maintenance. Nucleic Acids Research, 2018, 46, 2252-2264. | 6.5 | 65 |
| 32 | Single-molecule FRET reveals multiscale chromatin dynamics modulated by HP1Î±. Nature Communications, 2018, 9, 235. | 5.8 | 113 |
| 33 | Function and Regulation of Phase-Separated Biological Condensates. Biochemistry, 2018, 57, 2452-2461. | 1.2 | 41 |
| 34 | Transcriptional and chromatin changes accompanying de novo formation of transgenic piRNA clusters. Rna, 2018, 24, 574-584. | 1.6 | 24 |
| 35 | The 10-nm chromatin fiber and its relationship to interphase chromosome organization. Biochemical Society Transactions, 2018, 46, 67-76. | 1.6 | 55 |
| 36 | Structural Basis of Heterochromatin Formation by Human HP1. Molecular Cell, 2018, 69, 385-397.e8. | 4.5 | 196 |
| 37 | Functional Implications of Intracellular Phase Transitions. Biochemistry, 2018, 57, 2415-2423. | 1.2 | 189 |

| # | Article | IF | Citations |
|---|---|---|---|
| 38 | Ki-67: more than a proliferation marker. Chromosoma, 2018, 127, 175-186. | 1.0 | 527 |
| 39 | What do we know about the heterochromatin of capuchin monkeys (Cebus: Platyrrhini)?. Biological Journal of the Linnean Society, 2018, 123, 113-124. | 0.7 | 4 |
| 40 | <i>In Aqua Veritas</i>: The Indispensable yet Mostly Ignored Role of Water in Phase Separation and Membrane-less Organelles. Biochemistry, 2018, 57, 2437-2451. | 1.2 | 59 |
| 41 | Probing Conformational Exchange in Weakly Interacting, Slowly Exchanging Protein Systems via Off-Resonance <i>R</i><sub>1Ï</sub> Experiments: Application to Studies of Protein Phase Separation. Journal of the American Chemical Society, 2018, 140, 2115-2126. | 6.6 | 32 |
| 42 | Why Do Disordered and Structured Proteins Behave Differently in Phase Separation?. Trends in Biochemical Sciences, 2018, 43, 499-516. | 3.7 | 114 |
| 43 | Super-resolution Imaging of Individual Human Subchromosomal Regions <i>in Situ</i> Reveals Nanoscopic Building Blocks of Higher-Order Structure. ACS Nano, 2018, 12, 4909-4918. | 7.3 | 41 |
| 44 | Molecular mechanisms driving transcriptional stress responses. Nature Reviews Genetics, 2018, 19, 385-397. | 7.7 | 206 |
| 45 | Introduction to the Virtual Issue Alcohol and Epigenetic Regulation: Do the Products of Alcohol Metabolism Drive Epigenetic Control of Gene Expression in Alcoholâ€Related Disorders?. Alcoholism: Clinical and Experimental Research, 2018, 42, 845-848. | 1.4 | 12 |
| 46 | Sequence charge decoration dictates coil-globule transition in intrinsically disordered proteins. Journal of Chemical Physics, 2018, 148, 123305. | 1.2 | 73 |
| 47 | Separate roles for chromatin and lamins in nuclear mechanics. Nucleus, 2018, 9, 119-124. | 0.6 | 42 |
| 48 | Phase Separation Behavior of Supercharged Proteins and Polyelectrolytes. Biochemistry, 2018, 57, 314-323. | 1.2 | 62 |
| 49 | Ten principles of heterochromatin formation and function. Nature Reviews Molecular Cell Biology, 2018, 19, 229-244. | 16.1 | 523 |
| 50 | Protein-Based Inheritance: Epigenetics beyond the Chromosome. Molecular Cell, 2018, 69, 195-202. | 4.5 | 138 |
| 52 | The <i>Drosophila</i> Dot Chromosome: Where Genes Flourish Amidst Repeats. Genetics, 2018, 210, 757-772. | 1.2 | 47 |
| 53 | Nuclear Actin Polymerized by mDia2 Confines Centromere Movement during CENP-A Loading. IScience, 2018, 9, 314-327. | 1.9 | 17 |
| 54 | Coordinated histone modifications and chromatin reorganization in a single cell revealed by FRET biosensors. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11681-E11690. | 3.3 | 48 |
| 55 | Bottomâ€“up modeling of chromatin segregation due to epigenetic modifications. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12739-12744. | 3.3 | 117 |
| 56 | piRNA-Guided Genome Defense: From Biogenesis to Silencing. Annual Review of Genetics, 2018, 52, 131-157. | 3.2 | 372 |

| # | Article | IF | Citations |
|---|---|---|---|
| 57 | Mapping Local and Global Liquid Phase Behavior in Living Cells Using Photo-Oligomerizable Seeds. Cell, 2018, 175, 1467-1480.e13. | 13.5 | 330 |
| 58 | Liquid Nuclear Condensates Mechanically Sense and Restructure the Genome. Cell, 2018, 175, 1481-1491.e13. | 13.5 | 490 |
| 59 | Phase Separation of Intrinsically Disordered Proteins. Methods in Enzymology, 2018, 611, 1-30. | 0.4 | 141 |
| 60 | Rigidity Rules in DNA Droplets: Nucleic Acid Flexibility Affects Model Membraneless Organelles. Biophysical Journal, 2018, 115, 1837-1839. | 0.2 | 11 |
| 61 | Regulation of Chromatin Structure During Neural Development. Frontiers in Neuroscience, 2018, 12, 874. | 1.4 | 37 |
| 62 | Visualization and Quantitation of Phase-Separated Droplet Formation by Human HP1Î±. Methods in Enzymology, 2018, 611, 51-66. | 0.4 | 13 |
| 63 | Probing RNA Structure in Liquidâ€“Liquid Phase Separation Using SHAPE-MaP. Methods in Enzymology, 2018, 611, 67-79. | 0.4 | 11 |
| 64 | Volume-shrinking kinetics of transient gels as a consequence of dynamic interplay between phase separation and mechanical relaxation. Physical Review E, 2018, 98, . | 0.8 | 7 |
| 65 | Walking along chromosomes with super-resolution imaging, contact maps, and integrative modeling. PLoS Genetics, 2018, 14, e1007872. | 1.5 | 209 |
| 66 | Functional characterization of LIKE HETEROCHROMATIN PROTEIN 1 in the moss <i>Physcomitrella patens</i>: its conserved protein interactions in land plants. Plant Journal, 2019, 97, 221-239. | 2.8 | 21 |
| 67 | Migration through a small pore disrupts inactive chromatin organization in neutrophil-like cells. BMC Biology, 2018, 16, 142. | 1.7 | 37 |
| 68 | Chromatin conformation and transcriptional activity are permissive regulators of DNA replication initiation in <i>Drosophila</i>. Genome Research, 2018, 28, 1688-1700. | 2.4 | 29 |
| 69 | X-Chromosome Inactivation: A Crossroads Between Chromosome Architecture and Gene Regulation. Annual Review of Genetics, 2018, 52, 535-566. | 3.2 | 192 |
| 70 | UPA-seq: prediction of functional lncRNAs using differential sensitivity to UV crosslinking. Rna, 2018, 24, 1785-1802. | 1.6 | 4 |
| 71 | Blank spots on the map: some current questions on nuclear organization and genome architecture. Histochemistry and Cell Biology, 2018, 150, 579-592. | 0.8 | 24 |
| 72 | Non-Fickian Molecular Transport in Proteinâ€“DNA Droplets. ACS Macro Letters, 2018, 7, 1220-1225. | 2.3 | 28 |
| 73 | Transcription-driven genome organization: a model for chromosome structure and the regulation of gene expression tested through simulations. Nucleic Acids Research, 2018, 46, 9895-9906. | 6.5 | 92 |
| 74 | Compressive force induces reversible chromatin condensation and cell geometryâ€“dependent transcriptional response. Molecular Biology of the Cell, 2018, 29, 3039-3051. | 0.9 | 106 |

| # | Article | IF | Citations |
|---|---|---|---|
| 75 | The Birth of the 3D Genome during Early Embryonic Development. Trends in Genetics, 2018, 34, 903-914. | 2.9 | 65 |
| 76 | 4C-seq characterization of Drosophila BEAF binding regions provides evidence for highly variable long-distance interactions between active chromatin. PLoS ONE, 2018, 13, e0203843. | 1.1 | 11 |
| 77 | Highly disordered histone H1â^'DNA model complexes and their condensates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11964-11969. | 3.3 | 161 |
| 78 | Linker histones as liquid-like glue for chromatin. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11868-11870. | 3.3 | 32 |
| 79 | Drosophila<i>small ovary</i>gene is required for transposon silencing and heterochromatin organisation and ensures germline stem cell maintenance and differentiation. Development (Cambridge), 2018, 145, . | 1.2 | 27 |
| 80 | DNA Local-Flexibility-Dependent Assembly of Phase-Separated Liquid Droplets. Biophysical Journal, 2018, 115, 1840-1847. | 0.2 | 73 |
| 81 | Nuclear Actin: From Discovery to Function. Anatomical Record, 2018, 301, 1999-2013. | 0.8 | 70 |
| 82 | RNAs, Phase Separation, and Membraneâ€Less Organelles: Are Postâ€Transcriptional Modifications Modulating Organelle Dynamics?. BioEssays, 2018, 40, e1800085. | 1.2 | 48 |
| 83 | Molecular dissection of nuclear paraspeckles: towards understanding the emerging world of the RNP milieu. Open Biology, 2018, 8, . | 1.5 | 73 |
| 84 | Cancer Mutations of the Tumor Suppressor SPOP Disrupt the Formation of Active, Phase-Separated Compartments. Molecular Cell, 2018, 72, 19-36.e8. | 4.5 | 286 |
| 85 | A New Lens for RNA Localization: Liquid-Liquid Phase Separation. Annual Review of Microbiology, 2018, 72, 255-271. | 2.9 | 108 |
| 86 | Phase Separation in Biology and Disease. Journal of Molecular Biology, 2018, 430, 4603-4606. | 2.0 | 68 |
| 87 | Imaging dynamic and selective low-complexity domain interactions that control gene transcription. Science, 2018, 361, . | 6.0 | 750 |
| 88 | Coactivator condensation at super-enhancers links phase separation and gene control. Science, 2018, 361, . | 6.0 | 1,687 |
| 89 | Condensin II drives large-scale folding and spatial partitioning of interphase chromosomes in Drosophila nuclei. PLoS Genetics, 2018, 14, e1007393. | 1.5 | 86 |
| 90 | Gene regulation in the 3D genome. Human Molecular Genetics, 2018, 27, R228-R233. | 1.4 | 61 |
| 91 | Phase-separation mechanism forÂC-terminal hyperphosphorylation of RNA polymerase II. Nature, 2018, 558, 318-323. | 13.7 | 428 |
| 92 | Forces driving the threeâ€dimensional folding of eukaryotic genomes. Molecular Systems Biology, 2018, 14, e8214. | 3.2 | 75 |

| # | Article | IF | Citations |
|---|---|---|---|
| 93 | Epigenomes in Cardiovascular Disease. Circulation Research, 2018, 122, 1586-1607. | 2.0 | 60 |
| 94 | Eukaryotic core promoters and the functional basis of transcription initiation. Nature Reviews Molecular Cell Biology, 2018, 19, 621-637. | 16.1 | 480 |
| 95 | Nucleo-cytoplasmic transport of TDP-43 studied in real time: impaired microglia function leads to axonal spreading of TDP-43 in degenerating motor neurons. Acta Neuropathologica, 2018, 136, 445-459. | 3.9 | 66 |
| 96 | Histone H2A variants confer specific properties to nucleosomes and impact on chromatin accessibility. Nucleic Acids Research, 2018, 46, 7675-7685. | 6.5 | 65 |
| 97 | Systemic Loss and Gain of Chromatin Architecture throughout Zebrafish Development. Cell Reports, 2018, 24, 1-10.e4. | 2.9 | 124 |
| 98 | Nuclear microtubule filaments mediate non-linear directional motion of chromatin and promote DNA repair. Nature Communications, 2018, 9, 2567. | 5.8 | 72 |
| 99 | Chromatin organization by an interplay of loop extrusion and compartmental segregation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6697-E6706. | 3.3 | 510 |
| 100 | SUMO-Mediated Regulation of Nuclear Functions and Signaling Processes. Molecular Cell, 2018, 71, 409-418. | 4.5 | 184 |
| 101 | Histone methylation in DNA repair and clinical practice: new findings during the past 5-years. Journal of Cancer, 2018, 9, 2072-2081. | 1.2 | 46 |
| 102 | From 1D sequence to 3D chromatin dynamics and cellular functions: a phase separation perspective. Nucleic Acids Research, 2018, 46, 9367-9383. | 6.5 | 51 |
| 103 | A metallo-biopolymer conjugate of elastin-like polypeptide: photoluminescence enhancement in the coacervate microenvironment. Journal of Biological Inorganic Chemistry, 2018, 23, 1153-1157. | 1.1 | 3 |
| 104 | Distinct regions of the intrinsically disordered protein MUT-16 mediate assembly of a small RNA amplification complex and promote phase separation of Mutator foci. PLoS Genetics, 2018, 14, e1007542. | 1.5 | 45 |
| 105 | Heterochromatin: Guardian of the Genome. Annual Review of Cell and Developmental Biology, 2018, 34, 265-288. | 4.0 | 335 |
| 106 | Global DNA Compaction in Stationary-Phase Bacteria Does Not Affect Transcription. Cell, 2018, 174, 1188-1199.e14. | 13.5 | 81 |
| 107 | Methods for Physical Characterization of Phase-Separated Bodies and Membrane-less Organelles. Journal of Molecular Biology, 2018, 430, 4773-4805. | 2.0 | 124 |
| 108 | Dynamic condensates activate transcription. Science, 2018, 361, 329-330. | 6.0 | 64 |
| 109 | Transcription regulation enters a new phase. Nature, 2018, 558, 197-198. | 13.7 | 4 |
| 110 | DNA Supercoiling, Topoisomerases, and Cohesin: Partners in Regulating Chromatin Architecture?. International Journal of Molecular Sciences, 2018, 19, 884. | 1.8 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 111 | A highâ€throughput method to identify transâ€activation domains within transcription factor sequences. EMBO Journal, 2018, 37, . | 3.5 | 53 |
| 112 | LRIF1 interacts with HP1<b>Î±</b> to coordinate accurate chromosome segregation during mitosis. Journal of Molecular Cell Biology, 2018, 10, 527-538. | 1.5 | 19 |
| 113 | Fission yeast telosomes: non-canonical histone-containing chromatin structures dependent on shelterin and RNA. Nucleic Acids Research, 2018, 46, 8865-8875. | 6.5 | 7 |
| 114 | Sequence-dependent DNA condensation as a driving force of DNA phase separation. Nucleic Acids Research, 2018, 46, 9401-9413. | 6.5 | 55 |
| 115 | The tunable optical magneto-electric effect in patterned manganese oxide superlattices. Applied Physics Letters, 2018, 112, 192904. | 1.5 | 2 |
| 116 | Phasing in on the cell cycle. Cell Division, 2018, 13, 1. | 1.1 | 33 |
| 117 | Same-Sex Twin Pair Phenotypic Correlations are Consistent with Human Y Chromosome Promoting Phenotypic Heterogeneity. Evolutionary Biology, 2018, 45, 248-258. | 0.5 | 2 |
| 118 | Protein motion in the nucleus: from anomalous diffusion to weak interactions. Biochemical Society Transactions, 2018, 46, 945-956. | 1.6 | 56 |
| 119 | Remembering the past: Mitotic bookmarking in a developing embryo. Current Opinion in Systems Biology, 2018, 11, 41-49. | 1.3 | 18 |
| 120 | High-resolution visualization of H3 variants during replication reveals their controlled recycling. Nature Communications, 2018, 9, 3181. | 5.8 | 74 |
| 121 | Transcription Elongation Can Affect Genome 3D Structure. Cell, 2018, 174, 1522-1536.e22. | 13.5 | 369 |
| 122 | Modulating charge patterning and ionic strength as a strategy to induce conformational changes in intrinsically disordered proteins. Journal of Chemical Physics, 2018, 149, 085101. | 1.2 | 36 |
| 123 | Next-Generation Drugs and Probes for Chromatin Biology: From Targeted Protein Degradation to Phase Separation. Molecules, 2018, 23, 1958. | 1.7 | 40 |
| 124 | Liquid Droplet of Protein-Polyelectrolyte Complex for High-Concentration Formulations. Journal of Pharmaceutical Sciences, 2018, 107, 2713-2719. | 1.6 | 24 |
| 125 | SMCHD1 Merges Chromosome Compartments and Assists Formation of Super-Structures on the Inactive X. Cell, 2018, 174, 406-421.e25. | 13.5 | 139 |
| 126 | The <i>Caenorhabditis elegans</i> Ortholog of TDP-43 Regulates the Chromatin Localization of the Heterochromatin Protein 1 Homolog HPL-2. Molecular and Cellular Biology, 2018, 38, . | 1.1 | 14 |
| 127 | The solvent side of proteinaceous membrane-less organelles in light of aqueous two-phase systems. International Journal of Biological Macromolecules, 2018, 117, 1224-1251. | 3.6 | 45 |
| 128 | Phase separated microenvironments inside the cell nucleus are linked to disease and regulate epigenetic state, transcription and RNA processing. Seminars in Cell and Developmental Biology, 2019, 90, 94-103. | 2.3 | 69 |

| # | Article | IF | Citations |
|---|---|---|---|
| 129 | The molecular language of membraneless organelles. Journal of Biological Chemistry, 2019, 294, 7115-7127. | 1.6 | 515 |
| 130 | Computational methods for analyzing and modeling genome structure and organization. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2019, 11, e1435. | 6.6 | 27 |
| 131 | Understanding the 3D genome: Emerging impacts on human disease. Seminars in Cell and Developmental Biology, 2019, 90, 62-77. | 2.3 | 55 |
| 132 | Phase separation of 53 <scp>BP</scp> 1 determines liquidâ€like behavior of <scp>DNA</scp> repair compartments. EMBO Journal, 2019, 38, e101379. | 3.5 | 294 |
| 133 | 53BP1â€"DNA repair enters a new liquid phase. EMBO Journal, 2019, 38, e102871. | 3.5 | 13 |
| 134 | Enhancer Features that Drive Formation of Transcriptional Condensates. Molecular Cell, 2019, 75, 549-561.e7. | 4.5 | 284 |
| 135 | Modeling Single-Molecule Conformations of the HoxD Region in Mouse Embryonic Stem and Cortical Neuronal Cells. Cell Reports, 2019, 28, 1574-1583.e4. | 2.9 | 21 |
| 136 | The Capability of O-Acetyl-ADP-Ribose, an Epigenetic Metabolic Small Molecule, on Promoting the Further Spreading of Sir3 along the Telomeric Chromatin. Genes, 2019, 10, 577. | 1.0 | 0 |
| 137 | The synergic effect of water and biomolecules in intracellular phase separation. Nature Reviews Chemistry, 2019, 3, 552-561. | 13.8 | 58 |
| 138 | Liquidâ€"Liquid Phase Separation in Disease. Annual Review of Genetics, 2019, 53, 171-194. | 3.2 | 553 |
| 139 | Transcription of Bacterial Chromatin. Journal of Molecular Biology, 2019, 431, 4040-4066. | 2.0 | 51 |
| 140 | Impact of genome architecture on the functional activation and repression of Hox regulatory landscapes. BMC Biology, 2019, 17, 55. | 1.7 | 21 |
| 141 | Actinâ€™ between phase separated domains for heterochromatin repair. DNA Repair, 2019, 81, 102646. | 1.3 | 23 |
| 142 | A New Portrait of Constitutive Heterochromatin: Lessons from Drosophila melanogaster. Trends in Genetics, 2019, 35, 615-631. | 2.9 | 42 |
| 143 | Implications of liquidâ€"liquid phase separation in plant chromatin organization and transcriptional control. Current Opinion in Genetics and Development, 2019, 55, 59-65. | 1.5 | 20 |
| 144 | Visualizing transcription: key to understanding gene expression dynamics. Current Opinion in Chemical Biology, 2019, 51, 122-129. | 2.8 | 51 |
| 145 | Low-Affinity Binding Sites and the Transcription Factor Specificity Paradox in Eukaryotes. Annual Review of Cell and Developmental Biology, 2019, 35, 357-379. | 4.0 | 144 |
| 146 | MORC3 Forms Nuclear Condensates through Phase Separation. IScience, 2019, 17, 182-189. | 1.9 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 147 | Fused in sarcoma silences HIV gene transcription and maintains viral latency through suppressing AFF4 gene activation. Retrovirology, 2019, 16, 16. | 0.9 | 16 |
| 148 | Nuclear Phosphoinositidesâ€"Versatile Regulators of Genome Functions. Cells, 2019, 8, 649. | 1.8 | 26 |
| 149 | Nuclear Organization in Stress and Aging. Cells, 2019, 8, 664. | 1.8 | 28 |
| 150 | PRC1 collaborates with SMCHD1 to fold the X-chromosome and spread Xist RNA between chromosome compartments. Nature Communications, 2019, 10, 2950. | 5.8 | 56 |
| 151 | Finding Friends in the Crowd: Three-Dimensional Cliques of Topological Genomic Domains. Frontiers in Genetics, 2019, 10, 602. | 1.1 | 17 |
| 152 | Nucleation and Growth of Amino Acid and Peptide Supramolecular Polymers through Liquidâ€"Liquid Phase Separation. Angewandte Chemie - International Edition, 2019, 58, 18116-18123. | 7.2 | 241 |
| 153 | The genome-wide multi-layered architecture of chromosome pairing in early Drosophila embryos. Nature Communications, 2019, 10, 4486. | 5.8 | 38 |
| 154 | Evaluating phase separation in live cells: diagnosis, caveats, and functional consequences. Genes and Development, 2019, 33, 1619-1634. | 2.7 | 424 |
| 155 | Chromatin topology, condensates and gene regulation: shifting paradigms or just a phase?. Development (Cambridge), 2019, 146, . | 1.2 | 93 |
| 156 | The multiscale effects of polycomb mechanisms on 3D chromatin folding. Critical Reviews in Biochemistry and Molecular Biology, 2019, 54, 399-417. | 2.3 | 33 |
| 157 | Chromatin Compaction, Auxeticity, and the Epigenetic Landscape of Stem Cells. Physical Review X, 2019, 9, . | 2.8 | 7 |
| 158 | New insights into transcriptional reprogramming during cellular stress. Journal of Cell Science, 2019, 132, . | 1.2 | 36 |
| 159 | Evidence for and against Liquid-Liquid Phase Separation in the Nucleus. Non-coding RNA, 2019, 5, 50. | 1.3 | 114 |
| 160 | Liquidâ€"liquid phase separation is an intrinsic physicochemical property of chromatin. Nature Structural and Molecular Biology, 2019, 26, 1085-1086. | 3.6 | 23 |
| 161 | Nucleation and Growth of Amino Acid and Peptide Supramolecular Polymers through Liquidâ€"Liquid Phase Separation. Angewandte Chemie, 2019, 131, 18284-18291. | 1.6 | 79 |
| 162 | The Trap in the FRAP: A Cautionary Tale about Transport Measurements in Biomolecular Condensates. Biophysical Journal, 2019, 117, 2041-2042. | 0.2 | 6 |
| 163 | Phase separation-deficient TDP43 remains functional in splicing. Nature Communications, 2019, 10, 4890. | 5.8 | 117 |
| 164 | Probing the Functional Role of Physical Motion in Development. Developmental Cell, 2019, 51, 135-144. | 3.1 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 165 | Modes of phase separation affecting chromatin regulation. Open Biology, 2019, 9, 190167. | 1.5 | 30 |
| 166 | Heterochromatic hues of transcriptionâ€"the diverse roles of noncoding transcripts from constitutive heterochromatin. FEBS Journal, 2019, 286, 4626-4641. | 2.2 | 4 |
| 167 | Biomolecular condensates in neurodegeneration and cancer. Traffic, 2019, 20, 890-911. | 1.3 | 72 |
| 168 | Software for lattice light-sheet imaging of FRET biosensors, illustrated with a new Rap1 biosensor. Journal of Cell Biology, 2019, 218, 3153-3160. | 2.3 | 32 |
| 169 | The Gene-Silencing Protein MORC-1 Topologically Entraps DNA and Forms Multimeric Assemblies to Cause DNA Compaction. Molecular Cell, 2019, 75, 700-710.e6. | 4.5 | 34 |
| 170 | Deciphering Melatonin-Stabilized Phase Separation in Phospholipid Bilayers. Langmuir, 2019, 35, 12236-12245. | 1.6 | 25 |
| 171 | Molecular basis and biological function of variability in spatial genome organization. Science, 2019, 365, . | 6.0 | 168 |
| 172 | Olfactory receptor genes make the case for inter-chromosomal interactions. Current Opinion in Genetics and Development, 2019, 55, 106-113. | 1.5 | 49 |
| 173 | Role of Fine Structural Dynamics in Recognition of Histone H3 by HP1Î³(CSD) Dimer and Ability of Force Fields to Describe Their Interaction Network. Journal of Chemical Theory and Computation, 2019, 15, 5659-5673. | 2.3 | 2 |
| 174 | New Aspects of Magnesium Function: A Key Regulator in Nucleosome Self-Assembly, Chromatin Folding and Phase Separation. International Journal of Molecular Sciences, 2019, 20, 4232. | 1.8 | 22 |
| 175 | The inner centromere is a biomolecular condensate scaffolded by the chromosomal passenger complex. Nature Cell Biology, 2019, 21, 1127-1137. | 4.6 | 66 |
| 176 | Nuclear actin filaments in DNA repair dynamics. Nature Cell Biology, 2019, 21, 1068-1077. | 4.6 | 101 |
| 177 | Mechanisms of Interplay between Transcription Factors and the 3D Genome. Molecular Cell, 2019, 76, 306-319. | 4.5 | 140 |
| 178 | Transgenerational Self-Reconstruction of Disrupted Chromatin Organization After Exposure To An Environmental Stressor in Mice. Scientific Reports, 2019, 9, 13057. | 1.6 | 25 |
| 179 | Xist RNA in action: Past, present, and future. PLoS Genetics, 2019, 15, e1008333. | 1.5 | 160 |
| 180 | Organization of Chromatin by Intrinsic and Regulated Phase Separation. Cell, 2019, 179, 470-484.e21. | 13.5 | 707 |
| 181 | Polymer Modeling Predicts Chromosome Reorganization in Senescence. Cell Reports, 2019, 28, 3212-3223.e6. | 2.9 | 60 |
| 183 | Role of dynamic nuclear deformation on genomic architecture reorganization. PLoS Computational Biology, 2019, 15, e1007289. | 1.5 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 184 | Quantifying Dynamics in Phase-Separated Condensates Using Fluorescence Recovery after Photobleaching. Biophysical Journal, 2019, 117, 1285-1300. | 0.2 | 208 |
| 185 | Mediator Condensates Localize Signaling Factors to Key Cell Identity Genes. Molecular Cell, 2019, 76, 753-766.e6. | 4.5 | 188 |
| 186 | Organization of Chromosomal DNA by SMC Complexes. Annual Review of Genetics, 2019, 53, 445-482. | 3.2 | 236 |
| 187 | Collisions on the Busy DNA Highway Set Up Barriers for Reprogramming. Cell Stem Cell, 2019, 25, 451-453. | 5.2 | 1 |
| 188 | Histone Modifications Regulate Chromatin Compartmentalization by Contributing to a Phase Separation Mechanism. Molecular Cell, 2019, 76, 646-659.e6. | 4.5 | 250 |
| 189 | Distinct functions and temporal regulation of methylated histone H3 during early embryogenesis. Development (Cambridge), 2019, 146, . | 1.2 | 13 |
| 190 | Balanced between order and disorder: a new phase in transcription elongation control and beyond. Transcription, 2019, 10, 157-163. | 1.7 | 11 |
| 191 | Open Chromatin, Epigenetic Plasticity, and Nuclear Organization in Pluripotency. Developmental Cell, 2019, 48, 135-150. | 3.1 | 80 |
| 192 | Aggregation of Respiratory Complex Subunits Marks the Onset of Proteotoxicity in Proteasome Inhibited Cells. Journal of Molecular Biology, 2019, 431, 996-1015. | 2.0 | 16 |
| 193 | Considerations and Challenges in Studying Liquid-Liquid Phase Separation and Biomolecular Condensates. Cell, 2019, 176, 419-434. | 13.5 | 1,739 |
| 194 | Intermingling of chromosome territories. Genes Chromosomes and Cancer, 2019, 58, 500-506. | 1.5 | 17 |
| 195 | Thermodynamically driven assemblies and liquidâ€"liquid phase separations in biology. Soft Matter, 2019, 15, 1135-1154. | 1.2 | 77 |
| 196 | Two contrasting classes of nucleolus-associated domains in mouse fibroblast heterochromatin. Genome Research, 2019, 29, 1235-1249. | 2.4 | 83 |
| 197 | In search of a primitive signaling code. BioSystems, 2019, 183, 103984. | 0.9 | 3 |
| 198 | Specific Contributions of Cohesin-SA1 and Cohesin-SA2 to TADs and Polycomb Domains in Embryonic Stem Cells. Cell Reports, 2019, 27, 3500-3510.e4. | 2.9 | 60 |
| 199 | A Heat Shock Protein 48 (HSP48) Biomolecular Condensate Is Induced during Dictyostelium discoideum Development. MSphere, 2019, 4, . | 1.3 | 1 |
| 200 | Mitotic Chromosome Mechanics: How Cells Segregate Their Genome. Trends in Cell Biology, 2019, 29, 717-726. | 3.6 | 92 |
| 201 | Regulatory Landscaping: How Enhancer-Promoter Communication Is Sculpted in 3D. Molecular Cell, 2019, 74, 1110-1122. | 4.5 | 147 |

| # | Article | IF | Citations |
|---|---|---|---|
| 202 | Chromosome dynamics near the sol-gel phase transition dictate the timing of remote genomic interactions. Nature Communications, 2019, 10, 2771. | 5.8 | 94 |
| 203 | IDPs and IDRs in biomolecular condensates. , 2019, , 209-255. | | 13 |
| 204 | Phase separation of Polycomb-repressive complex 1 is governed by a charged disordered region of CBX2. Genes and Development, 2019, 33, 799-813. | 2.7 | 264 |
| 205 | Intrinsic Disorder-Based Emergence in Cellular Biology: Physiological and Pathological Liquid-Liquid Phase Transitions in Cells. Polymers, 2019, 11, 990. | 2.0 | 54 |
| 206 | The Impact of Centromeres on Spatial Genome Architecture. Trends in Genetics, 2019, 35, 565-578. | 2.9 | 77 |
| 207 | A multiscale analysis of DNA phase separation: from atomistic to mesoscale level. Nucleic Acids Research, 2019, 47, 5550-5562. | 6.5 | 24 |
| 208 | Phase Separation as a Melting Pot for DNA Repeats. Trends in Genetics, 2019, 35, 589-600. | 2.9 | 21 |
| 209 | Organizing Principles for the Spatial Folding of Chromosomes. , 2019, , 107-130. | | 0 |
| 210 | Chromatin-associated RNAs as facilitators of functional genomic interactions. Nature Reviews Genetics, 2019, 20, 503-519. | 7.7 | 151 |
| 211 | Heterochromatin drives compartmentalization of inverted and conventional nuclei. Nature, 2019, 570, 395-399. | 13.7 | 464 |
| 212 | The role of 3D genome organization in development and cell differentiation. Nature Reviews Molecular Cell Biology, 2019, 20, 535-550. | 16.1 | 451 |
| 213 | Cellular consequences of arginine methylation. Cellular and Molecular Life Sciences, 2019, 76, 2933-2956. | 2.4 | 99 |
| 214 | Developing landscapes: genome architecture during early embryogenesis. Current Opinion in Genetics and Development, 2019, 55, 39-45. | 1.5 | 10 |
| 215 | Learning the Formation Mechanism of Domain-Level Chromatin States with Epigenomics Data. Biophysical Journal, 2019, 116, 2047-2056. | 0.2 | 28 |
| 216 | Transcription factors and 3D genome conformation in cell-fate decisions. Nature, 2019, 569, 345-354. | 13.7 | 362 |
| 217 | ATP, Mg2+, Nuclear Phase Separation, and Genome Accessibility. Trends in Biochemical Sciences, 2019, 44, 565-574. | 3.7 | 37 |
| 218 | Identification and characterization of â€˜readersâ€™ for novel histone modifications. Current Opinion in Chemical Biology, 2019, 51, 57-65. | 2.8 | 21 |
| 219 | Role of H3K9me3 heterochromatin in cell identity establishment and maintenance. Current Opinion in Genetics and Development, 2019, 55, 1-10. | 1.5 | 177 |

| # | Article | IF | Citations |
|---|---|---|---|
| 220 | Role of nuclear RNA in regulating chromatin structure and transcription. Current Opinion in Cell Biology, 2019, 58, 120-125. | 2.6 | 47 |
| 221 | Long-range interactions between topologically associating domains shape the four-dimensional genome during differentiation. Nature Genetics, 2019, 51, 835-843. | 9.4 | 114 |
| 222 | 3D genome organization: a role for phase separation and loop extrusion?. Current Opinion in Plant Biology, 2019, 48, 36-46. | 3.5 | 43 |
| 223 | Cellular sensing by phase separation: Using the process, not just the products. Journal of Biological Chemistry, 2019, 294, 7151-7159. | 1.6 | 152 |
| 224 | Heterochromatin Protein HP1Î± Gelation Dynamics Revealed by Solidâ€State NMR Spectroscopy. Angewandte Chemie, 2019, 131, 6366-6371. | 1.6 | 10 |
| 225 | A Snapshot on the Cis Chromatin Response to DNA Double-Strand Breaks. Trends in Genetics, 2019, 35, 330-345. | 2.9 | 83 |
| 226 | Chromatinâ€™s physical properties shape the nucleus and its functions. Current Opinion in Cell Biology, 2019, 58, 76-84. | 2.6 | 141 |
| 227 | The role of transcription in shaping the spatial organization of the genome. Nature Reviews Molecular Cell Biology, 2019, 20, 327-337. | 16.1 | 188 |
| 228 | Bridging biophysics and neurology: aberrant phase transitions in neurodegenerative disease. Nature Reviews Neurology, 2019, 15, 272-286. | 4.9 | 150 |
| 229 | Perspective on Alternative Splicing and Proteome Complexity in Plants. Trends in Plant Science, 2019, 24, 496-506. | 4.3 | 129 |
| 230 | How the Genome Folds: The Biophysics of Four-Dimensional Chromatin Organization. Annual Review of Biophysics, 2019, 48, 231-253. | 4.5 | 52 |
| 231 | Heterochromatin Protein HP1Î± Gelation Dynamics Revealed by Solidâ€State NMR Spectroscopy. Angewandte Chemie - International Edition, 2019, 58, 6300-6305. | 7.2 | 44 |
| 232 | Transcriptional gene silencing requires dedicated interaction between HP1 protein Chp2 and chromatin remodeler Mit1. Genes and Development, 2019, 33, 565-577. | 2.7 | 20 |
| 233 | Emergent functions of proteins in non-stoichiometric supramolecular assemblies. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2019, 1867, 970-979. | 1.1 | 49 |
| 234 | Chemical and biophysical methods to explore dynamic mechanisms of chromatin silencing. Current Opinion in Chemical Biology, 2019, 51, 1-10. | 2.8 | 6 |
| 235 | United colours of chromatin? Developmental genome organisation in flies. Biochemical Society Transactions, 2019, 47, 691-700. | 1.6 | 1 |
| 236 | Unraveling the multiplex folding of nucleosome chains in higher order chromatin. Essays in Biochemistry, 2019, 63, 109-121. | 2.1 | 14 |
| 237 | Post-translational modifications and chromatin dynamics. Essays in Biochemistry, 2019, 63, 89-96. | 2.1 | 64 |

| # | Article | IF | Citations |
|---|---|---|---|
| 238 | Lamina Associated Domains and Gene Regulation in Development and Cancer. Cells, 2019, 8, 271. | 1.8 | 55 |
| 239 | Measuring Mobility in Chromatin by Intensity-Sorted FCS. Biophysical Journal, 2019, 116, 987-999. | 0.2 | 37 |
| 240 | CBP/p300 in brain development and plasticity: disentangling the KATâ€™s cradle. Current Opinion in Neurobiology, 2019, 59, 1-8. | 2.0 | 26 |
| 241 | Changes in long-range rDNA-genomic interactions associate with altered RNA polymerase II gene programs during malignant transformation. Communications Biology, 2019, 2, 39. | 2.0 | 33 |
| 242 | Principles of genome folding into topologically associating domains. Science Advances, 2019, 5, eaaw1668. | 4.7 | 415 |
| 243 | Time-Resolved Observations of Liquidâ€“Liquid Phase Separation at the Nanoscale Using <i>in Situ</i> Liquid Transmission Electron Microscopy. Journal of the American Chemical Society, 2019, 141, 7202-7210. | 6.6 | 69 |
| 244 | Histone Methylation and Memory of Environmental Stress. Cells, 2019, 8, 339. | 1.8 | 63 |
| 245 | Dynamic chromatin organization in the cell. Essays in Biochemistry, 2019, 63, 133-145. | 2.1 | 16 |
| 246 | Physical principles and functional consequences of nuclear compartmentalization in budding yeast. Current Opinion in Cell Biology, 2019, 58, 105-113. | 2.6 | 22 |
| 247 | Phasing in heterochromatin during development. Genes and Development, 2019, 33, 379-381. | 2.7 | 7 |
| 248 | Histone variant macroH2A: from chromatin deposition to molecular function. Essays in Biochemistry, 2019, 63, 59-74. | 2.1 | 40 |
| 249 | Disordered domains in chromatin-binding proteins. Essays in Biochemistry, 2019, 63, 147-156. | 2.1 | 36 |
| 250 | Mechanism of DNAâ€Induced Phase Separation for Transcriptional Repressor VRN1. Angewandte Chemie, 2019, 131, 4912-4916. | 1.6 | 13 |
| 251 | H3K9 Promotes Under-Replication of Pericentromeric Heterochromatin in Drosophila Salivary Gland Polytene Chromosomes. Genes, 2019, 10, 93. | 1.0 | 11 |
| 252 | Heterochromatic foci and transcriptional repression by an unstructured MET-2/SETDB1 co-factor LIN-65. Journal of Cell Biology, 2019, 218, 820-838. | 2.3 | 21 |
| 253 | The C-Terminal Domain of RNA Polymerase II Is a Multivalent Targeting Sequence that Supports Drosophila Development with Only Consensus Heptads. Molecular Cell, 2019, 73, 1232-1242.e4. | 4.5 | 46 |
| 254 | Mechanism of DNAâ€Induced Phase Separation for Transcriptional Repressor VRN1. Angewandte Chemie - International Edition, 2019, 58, 4858-4862. | 7.2 | 69 |
| 255 | Rapid embryonic cell cycles defer the establishment of heterochromatin by Eggless/SetDB1 in <i>Drosophila</i>. Genes and Development, 2019, 33, 403-417. | 2.7 | 64 |

| # | Article | IF | Citations |
|---|---|---|---|
| 256 | Attenuated chromatin compartmentalization in meiosis and its maturation in sperm development. Nature Structural and Molecular Biology, 2019, 26, 175-184. | 3.6 | 92 |
| 257 | Dynamics of transcriptional enhancers and chromosome topology in gene regulation. Development Growth and Differentiation, 2019, 61, 343-352. | 0.6 | 13 |
| 258 | The Nuclear Lamina as an Organizer of Chromosome Architecture. Cells, 2019, 8, 136. | 1.8 | 72 |
| 259 | Heterochromatin anomalies and double-stranded RNA accumulation underlie <i>C9orf72</i> poly(PR) toxicity. Science, 2019, 363, . | 6.0 | 181 |
| 260 | Biophysical Properties of HP1-Mediated Heterochromatin. Cold Spring Harbor Symposia on Quantitative Biology, 2019, 84, 217-225. | 2.0 | 11 |
| 261 | Liquid-liquid phase transitions and amyloid aggregation in proteins related to cancer and neurodegenerative diseases. Advances in Protein Chemistry and Structural Biology, 2019, 118, 289-331. | 1.0 | 50 |
| 262 | Hidden Aspects of Valency in Immune System Regulation. Trends in Immunology, 2019, 40, 1082-1094. | 2.9 | 13 |
| 263 | Protamines from liverwort are produced by post-translational cleavage and C-terminal di-aminopropanelation of several male germ-specific H1 histones. Journal of Biological Chemistry, 2019, 294, 16364-16373. | 1.6 | 17 |
| 264 | Common Features of the Pericentromere and Nucleolus. Genes, 2019, 10, 1029. | 1.0 | 20 |
| 265 | Epigenetics and the dynamics of chromatin during adenovirus infections. FEBS Letters, 2019, 593, 3551-3570. | 1.3 | 25 |
| 266 | The liquid nucleome â€" phase transitions in the nucleus at a glance. Journal of Cell Science, 2019, 132, . | 1.2 | 181 |
| 267 | Phase separation of YAP reorganizes genome topology for long-term YAP target gene expression. Nature Cell Biology, 2019, 21, 1578-1589. | 4.6 | 237 |
| 268 | Probing and engineering liquid-phase organelles. Nature Biotechnology, 2019, 37, 1435-1445. | 9.4 | 225 |
| 269 | Exploring Mammalian Genome within Phase-Separated Nuclear Bodies: Experimental Methods and Implications for Gene Expression. Genes, 2019, 10, 1049. | 1.0 | 15 |
| 270 | Expression and phase separation potential ofÂheterochromatin proteins during early mouseÂdevelopment. EMBO Reports, 2019, 20, e47952. | 2.0 | 12 |
| 271 | Chromosome-associated RNAâ€"protein complexes promote pairing of homologous chromosomes during meiosis in Schizosaccharomyces pombe. Nature Communications, 2019, 10, 5598. | 5.8 | 47 |
| 272 | Functional transcription promoters at DNA double-strand breaks mediate RNA-driven phase separation of damage-response factors. Nature Cell Biology, 2019, 21, 1286-1299. | 4.6 | 233 |
| 273 | HP1 reshapes nucleosome core to promote phase separation of heterochromatin. Nature, 2019, 575, 390-394. | 13.7 | 358 |

| # | Article | IF | Citations |
|---|---|---|---|
| 274 | Chromatin state switching in a polymer model with mark-conformation coupling. Physical Review E, 2019, 100, 060401. | 0.8 | 9 |
| 275 | Timely double-strand break repair and pathway choice in pericentromeric heterochromatin depend on the histone demethylase dKDM4A. Genes and Development, 2019, 33, 103-115. | 2.7 | 45 |
| 276 | Rapid reversible changes in compartments and local chromatin organization revealed by hyperosmotic shock. Genome Research, 2019, 29, 18-28. | 2.4 | 40 |
| 277 | Mechanical regulation of genome architecture and cell-fate decisions. Current Opinion in Cell Biology, 2019, 56, 115-121. | 2.6 | 37 |
| 278 | Multiple Roles for Mono- and Poly(ADP-Ribose) in Regulating Stress Responses. Trends in Genetics, 2019, 35, 159-172. | 2.9 | 26 |
| 279 | Mechanisms regulating zygotic genome activation. Nature Reviews Genetics, 2019, 20, 221-234. | 7.7 | 324 |
| 280 | Models of polymer physics for the architecture of the cell nucleus. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2019, 11, e1444. | 6.6 | 14 |
| 281 | LAP2 Proteins Chaperone GLI1 Movement between the Lamina and Chromatin to Regulate Transcription. Cell, 2019, 176, 198-212.e15. | 13.5 | 52 |
| 282 | Plant HP1 protein ADCP1 links multivalent H3K9 methylation readout to heterochromatin formation. Cell Research, 2019, 29, 54-66. | 5.7 | 83 |
| 283 | The Role of Maternal HP1a in Early Drosophila Embryogenesis via Regulation of Maternal Transcript Production. Genetics, 2019, 211, 201-217. | 1.2 | 8 |
| 284 | Heat Shock Factor 1 Drives Intergenic Association of Its Target Gene Loci upon Heat Shock. Cell Reports, 2019, 26, 18-28.e5. | 2.9 | 55 |
| 285 | More than just a phase: the search for membraneless organelles in the bacterial cytoplasm. Current Genetics, 2019, 65, 691-694. | 0.8 | 58 |
| 286 | LHX2- and LDB1-mediated trans interactions regulate olfactory receptor choice. Nature, 2019, 565, 448-453. | 13.7 | 215 |
| 287 | Coaching from the sidelines: the nuclear periphery in genome regulation. Nature Reviews Genetics, 2019, 20, 39-50. | 7.7 | 147 |
| 288 | Membraneless nuclear organelles and the search for phases within phases. Wiley Interdisciplinary Reviews RNA, 2019, 10, e1514. | 3.2 | 111 |
| 289 | ADCP1: a novel plant H3K9me2 reader. Cell Research, 2019, 29, 6-7. | 5.7 | 4 |
| 290 | Nuclear condensates of the Polycomb protein chromobox 2 (CBX2) assemble through phase separation. Journal of Biological Chemistry, 2019, 294, 1451-1463. | 1.6 | 261 |
| 291 | Histone supply: Multitiered regulation ensures chromatin dynamics throughout the cell cycle. Journal of Cell Biology, 2019, 218, 39-54. | 2.3 | 69 |

| # | Article | IF | Citations |
|---|---|---|---|
| 292 | Advancements in mapping 3D genome architecture. Methods, 2020, 170, 75-81. | 1.9 | 3 |
| 293 | Protein aggregation in cell biology: An aggregomics perspective of health and disease. Seminars in Cell and Developmental Biology, 2020, 99, 40-54. | 2.3 | 36 |
| 294 | The Secret Life of Chromosome Loops upon DNA Double-Strand Break. Journal of Molecular Biology, 2020, 432, 724-736. | 2.0 | 28 |
| 295 | PhaSepDB: a database of liquidâ€"liquid phase separation related proteins. Nucleic Acids Research, 2020, 48, D354-D359. | 6.5 | 157 |
| 296 | Binding to m6A RNA promotes YTHDF2-mediated phase separation. Protein and Cell, 2020, 11, 304-307. | 4.8 | 52 |
| 297 | Inference of chromosome 3D structures from GAM data by a physics computational approach. Methods, 2020, 181-182, 70-79. | 1.9 | 12 |
| 298 | Phase Separation in Regulation of Aggrephagy. Journal of Molecular Biology, 2020, 432, 160-169. | 2.0 | 37 |
| 299 | Irregular Chromatin: Packing Density, Fiber Width, and Occurrence of Heterogeneous Clusters. Biophysical Journal, 2020, 118, 207-218. | 0.2 | 21 |
| 300 | The Nuclear Matrix Protein SAFB Cooperates with Major Satellite RNAs to Stabilize Heterochromatin Architecture Partially through Phase Separation. Molecular Cell, 2020, 77, 368-383.e7. | 4.5 | 104 |
| 301 | Three-dimensional chromosome organization in flowering plants. Briefings in Functional Genomics, 2020, 19, 83-91. | 1.3 | 12 |
| 302 | Local Chromatin Motion and Transcription. Journal of Molecular Biology, 2020, 432, 694-700. | 2.0 | 29 |
| 303 | Genome organization via loop extrusion, insights from polymer physics models. Briefings in Functional Genomics, 2020, 19, 119-127. | 1.3 | 11 |
| 304 | Mesoscale Liquid Model of Chromatin Recapitulates Nuclear Order of Eukaryotes. Biophysical Journal, 2020, 118, 2130-2140. | 0.2 | 29 |
| 305 | Phase Separation in Asymmetric Cell Division. Biochemistry, 2020, 59, 47-56. | 1.2 | 12 |
| 306 | The genomics of oxidative DNA damage, repair, and resulting mutagenesis. Computational and Structural Biotechnology Journal, 2020, 18, 207-219. | 1.9 | 206 |
| 307 | Liquid-Liquid Phase Separation of Histone Proteins in Cells: Role in Chromatin Organization. Biophysical Journal, 2020, 118, 753-764. | 0.2 | 105 |
| 308 | Positioning Heterochromatin at the Nuclear Periphery Suppresses Histone Turnover to Promote Epigenetic Inheritance. Cell, 2020, 180, 150-164.e15. | 13.5 | 78 |
| 309 | TADs and Their Borders: Free Movement or Building a Wall?. Journal of Molecular Biology, 2020, 432, 643-652. | 2.0 | 70 |

| # | Article | IF | Citations |
|---|---|---|---|
| 310 | Higher-order Chromosome Structures Investigated by Polymer Physics in Cellular Morphogenesis and Differentiation. Journal of Molecular Biology, 2020, 432, 701-711. | 2.0 | 10 |
| 311 | Direct visualization of degradation microcompartments at the ER membrane. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1069-1080. | 3.3 | 68 |
| 312 | The SUMO Ligase Su(var)2-10 Controls Hetero- and Euchromatic Gene Expression via Establishing H3K9 Trimethylation and Negative Feedback Regulation. Molecular Cell, 2020, 77, 571-585.e4. | 4.5 | 36 |
| 313 | A Non-amyloid Prion Particle that Activates a Heritable Gene Expression Program. Molecular Cell, 2020, 77, 251-265.e9. | 4.5 | 69 |
| 314 | Chromatin structure changes during various processes from a DNA sequence view. Current Opinion in Structural Biology, 2020, 62, 1-8. | 2.6 | 16 |
| 315 | Maximum Entropy Optimized Force Field for Intrinsically Disordered Proteins. Journal of Chemical Theory and Computation, 2020, 16, 773-781. | 2.3 | 64 |
| 316 | TADs or no TADS: Lessons From Single-cell Imaging of Chromosome Architecture. Journal of Molecular Biology, 2020, 432, 682-693. | 2.0 | 9 |
| 317 | Methods for mapping 3DÂchromosome architecture. Nature Reviews Genetics, 2020, 21, 207-226. | 7.7 | 362 |
| 318 | Gain-of-Function MN1 Truncation Variants Cause a Recognizable Syndrome with Craniofacial and Brain Abnormalities. American Journal of Human Genetics, 2020, 106, 13-25. | 2.6 | 25 |
| 319 | Mitotic Implantation of the Transcription Factor Prospero via Phase Separation Drives Terminal Neuronal Differentiation. Developmental Cell, 2020, 52, 277-293.e8. | 3.1 | 62 |
| 320 | Molecular structure in biomolecular condensates. Current Opinion in Structural Biology, 2020, 60, 17-26. | 2.6 | 91 |
| 321 | Native Chromatin Proteomics Reveals a Role for Specific Nucleoporins in Heterochromatin Organization and Maintenance. Molecular Cell, 2020, 77, 51-66.e8. | 4.5 | 75 |
| 322 | Genome-Scale Imaging of the 3D Organization and Transcriptional Activity of Chromatin. Cell, 2020, 182, 1641-1659.e26. | 13.5 | 309 |
| 323 | The Self-Organizing Genome: Principles of Genome Architecture and Function. Cell, 2020, 183, 28-45. | 13.5 | 342 |
| 324 | Three-dimensional deconvolution processing for STEM cryotomography. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27374-27380. | 3.3 | 20 |
| 325 | PML nuclear bodies and chromatin dynamics: catch me if you can!. Nucleic Acids Research, 2020, 48, 11890-11912. | 6.5 | 100 |
| 326 | Regulation and Roles of the Nucleolus in Embryonic Stem Cells: From Ribosome Biogenesis to Genome Organization. Stem Cell Reports, 2020, 15, 1206-1219. | 2.3 | 37 |
| 327 | Characterizing chromatin folding coordinate and landscape with deep learning. PLoS Computational Biology, 2020, 16, e1008262. | 1.5 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 328 | Host Gene Regulation by Transposable Elements: The New, the Old and the Ugly. Viruses, 2020, 12, 1089. | 1.5 | 25 |
| 329 | MeCP2 links heterochromatin condensates and neurodevelopmental disease. Nature, 2020, 586, 440-444. | 13.7 | 112 |
| 330 | From start to end: Phase separation and transcriptional regulation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2020, 1863, 194641. | 0.9 | 48 |
| 331 | Biomolecular Condensates and Gene Activation in Development and Disease. Developmental Cell, 2020, 55, 84-96. | 3.1 | 40 |
| 332 | Emerging Roles for Phase Separation in Plants. Developmental Cell, 2020, 55, 69-83. | 3.1 | 84 |
| 333 | TASOR is a pseudo-PARP that directs HUSH complex assembly and epigenetic transposon control. Nature Communications, 2020, 11, 4940. | 5.8 | 59 |
| 334 | DrLLPS: a data resource of liquidâ€"liquid phase separation in eukaryotes. Nucleic Acids Research, 2020, 48, D288-D295. | 6.5 | 112 |
| 335 | ATP-Driven Separation of Liquid Phase Condensates in Bacteria. Molecular Cell, 2020, 79, 293-303.e4. | 4.5 | 107 |
| 336 | The Interplay between Phase Separation and Gene-Enhancer Communication: A Theoretical Study. Biophysical Journal, 2020, 119, 873-883. | 0.2 | 12 |
| 337 | Biomolecular Condensates in the Nucleus. Trends in Biochemical Sciences, 2020, 45, 961-977. | 3.7 | 259 |
| 338 | Recent advances in computational-based approaches in epigenetics studies. , 2020, , 569-590. | | 1 |
| 339 | Navigating the crowd: visualizing coordination between genome dynamics, structure, and transcription. Genome Biology, 2020, 21, 278. | 3.8 | 20 |
| 340 | Chromatin-Associated Membraneless Organelles in Regulation of Cellular Differentiation. Stem Cell Reports, 2020, 15, 1220-1232. | 2.3 | 17 |
| 341 | Diabetes Mellitus Is a Chronic Disease that Can Benefit from Therapy with Induced Pluripotent Stem Cells. International Journal of Molecular Sciences, 2020, 21, 8685. | 1.8 | 13 |
| 342 | Divide and Rule: Phase Separation in Eukaryotic Genome Functioning. Cells, 2020, 9, 2480. | 1.8 | 15 |
| 343 | Reevaluating the roles of histone-modifying enzymes and their associated chromatin modifications in transcriptional regulation. Nature Genetics, 2020, 52, 1271-1281. | 9.4 | 209 |
| 344 | Epigenetic conflict on a degenerating Y chromosome increases mutational burden in Drosophila males. Nature Communications, 2020, 11, 5537. | 5.8 | 26 |
| 345 | Unraveling the 3D Genome Architecture in Plants: Present and Future. Molecular Plant, 2020, 13, 1676-1693. | 3.9 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 346 | Phase separation by the polyhomeotic sterile alpha motif compartmentalizes Polycomb Group proteins and enhances their activity. Nature Communications, 2020, 11, 5609. | 5.8 | 79 |
| 347 | Advances in Chromatin and Chromosome Research: Perspectives from Multiple Fields. Molecular Cell, 2020, 79, 881-901. | 4.5 | 42 |
| 348 | Physical modeling of the heritability and maintenance of epigenetic modifications. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20423-20429. | 3.3 | 41 |
| 349 | Nuclear actin: The new normal. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2020, 821, 111714. | 0.4 | 16 |
| 350 | Implications of the Evolutionary Trajectory of Centromeres in the Fungal Kingdom. Annual Review of Microbiology, 2020, 74, 835-853. | 2.9 | 22 |
| 351 | The Paramecium histone chaperone Spt16-1 is required for Pgm endonuclease function in programmed genome rearrangements. PLoS Genetics, 2020, 16, e1008949. | 1.5 | 14 |
| 352 | Phase separation of Arabidopsis EMB1579 controls transcription, mRNA splicing, and development. PLoS Biology, 2020, 18, e3000782. | 2.6 | 32 |
| 353 | Interactions With Histone H3 & Tools to Study Them. Frontiers in Cell and Developmental Biology, 2020, 8, 701. | 1.8 | 17 |
| 354 | Phase separation drives decision making in cell division. Journal of Biological Chemistry, 2020, 295, 13419-13431. | 1.6 | 41 |
| 355 | Nucleosome positioning and chromatin organization. Current Opinion in Structural Biology, 2020, 64, 111-118. | 2.6 | 28 |
| 356 | The rich inner life of the cell nucleus: dynamic organization, active flows, and emergent rheology. Biophysical Reviews, 2020, 12, 1093-1106. | 1.5 | 45 |
| 357 | Phase-Separated Transcriptional Condensates Accelerate Target-Search Process Revealed by Live-Cell Single-Molecule Imaging. Cell Reports, 2020, 33, 108248. | 2.9 | 88 |
| 358 | Pioneer Transcription Factors Initiating Gene Network Changes. Annual Review of Genetics, 2020, 54, 367-385. | 3.2 | 247 |
| 359 | Examining histone modification crosstalk using immobilized libraries established from ligation-ready nucleosomes. Chemical Science, 2020, 11, 9218-9225. | 3.7 | 18 |
| 360 | Large-Scale Topological Changes Restrain Malignant Progression in Colorectal Cancer. Cell, 2020, 182, 1474-1489.e23. | 13.5 | 126 |
| 361 | Revisiting 3D chromatin architecture in cancer development and progression. Nucleic Acids Research, 2020, 48, 10632-10647. | 6.5 | 22 |
| 362 | Single-molecule imaging reveals control of parental histone recycling by free histones during DNA replication. Science Advances, 2020, 6, . | 4.7 | 43 |
| 363 | Heterochromatin as an Important Driver of Genome Organization. Frontiers in Cell and Developmental Biology, 2020, 8, 579137. | 1.8 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 364 | Functions of Polycomb Proteins on Active Targets. Epigenomes, 2020, 4, 17. | 0.8 | 13 |
| 365 | Structural Polymorphism of Single pDNA Condensates Elicited by Cationic Block Polyelectrolytes. Polymers, 2020, 12, 1603. | 2.0 | 8 |
| 366 | Effects of Non-Electrostatic Intermolecular Interactions on the Phase Behavior of pH-Sensitive Polyelectrolyte Complexes. Macromolecules, 2020, 53, 7835-7844. | 2.2 | 54 |
| 367 | Editorial overview: Genome architecture and expression. Current Opinion in Genetics and Development, 2020, 61, iii-vi. | 1.5 | 0 |
| 368 | Complex Chromatin Motions for DNA Repair. Frontiers in Genetics, 2020, 11, 800. | 1.1 | 24 |
| 369 | The evolving metabolic landscape of chromatin biology and epigenetics. Nature Reviews Genetics, 2020, 21, 737-753. | 7.7 | 255 |
| 370 | Insights into HP1a-Chromatin Interactions. Cells, 2020, 9, 1866. | 1.8 | 11 |
| 371 | Identifying proteins bound to native mitotic ESC chromosomes reveals chromatin repressors are important for compaction. Nature Communications, 2020, 11, 4118. | 5.8 | 26 |
| 372 | Enzymatic Noncovalent Synthesis. Chemical Reviews, 2020, 120, 9994-10078. | 23.0 | 143 |
| 373 | Charge pattern affects the structure and dynamics of polyampholyte condensates. Physical Chemistry Chemical Physics, 2020, 22, 19368-19375. | 1.3 | 51 |
| 374 | What Is Lost in the Weismann Barrier?. Journal of Developmental Biology, 2020, 8, 35. | 0.9 | 14 |
| 375 | Condensed Chromatin Behaves like a Solid on the Mesoscale InÂVitro and in Living Cells. Cell, 2020, 183, 1772-1784.e13. | 13.5 | 186 |
| 376 | Chromatin: Liquid or Solid?. Cell, 2020, 183, 1737-1739. | 13.5 | 21 |
| 377 | Phase Separation as a Missing Mechanism for Interpretation of Disease Mutations. Cell, 2020, 183, 1742-1756. | 13.5 | 147 |
| 378 | Protein condensates as aging Maxwell fluids. Science, 2020, 370, 1317-1323. | 6.0 | 247 |
| 379 | Simultaneous epigenetic perturbation and genome imaging reveal distinct roles of H3K9me3 in chromatin architecture and transcription. Genome Biology, 2020, 21, 296. | 3.8 | 37 |
| 380 | A Prion-like Domain in Transcription Factor EBF1 Promotes Phase Separation and Enables B Cell Programming of Progenitor Chromatin. Immunity, 2020, 53, 1151-1167.e6. | 6.6 | 47 |
| 381 | Expansion of Intrinsically Disordered Proteins Increases the Range of Stability of Liquidâ€"Liquid Phase Separation. Molecules, 2020, 25, 4705. | 1.7 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 382 | RNA phase separationâ€“mediated direction of molecular trafficking under conditions of molecular crowding. Biophysical Reviews, 2020, 12, 669-676. | 1.5 | 12 |
| 383 | Histone H3K9 methylation promotes formation of genome compartments in <i>Caenorhabditis elegans</i> via chromosome compaction and perinuclear anchoring. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11459-11470. | 3.3 | 47 |
| 384 | Oncogenic super-enhancer formation in tumorigenesis and its molecular mechanisms. Experimental and Molecular Medicine, 2020, 52, 713-723. | 3.2 | 44 |
| 385 | Liquid phase condensation directs nucleosome epigenetic modifications. Signal Transduction and Targeted Therapy, 2020, 5, 64. | 7.1 | 3 |
| 386 | Large DNA Methylation Nadirs Anchor Chromatin Loops Maintaining Hematopoietic Stem Cell Identity. Molecular Cell, 2020, 78, 506-521.e6. | 4.5 | 72 |
| 387 | Biophysical mechanisms of chromatin patterning. Current Opinion in Genetics and Development, 2020, 61, 62-68. | 1.5 | 23 |
| 388 | Polymer perspective of genome mobilization. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2020, 821, 111706. | 0.4 | 4 |
| 389 | Nuclear filaments: role in chromosomal positioning and gene expression. Nucleus, 2020, 11, 99-110. | 0.6 | 12 |
| 390 | Extreme disruption of heterochromatin is required for accelerated hematopoietic aging. Blood, 2020, 135, 2049-2058. | 0.6 | 22 |
| 391 | Multiplexed imaging of nucleome architectures in single cells of mammalian tissue. Nature Communications, 2020, 11, 2907. | 5.8 | 69 |
| 392 | How HP1 Post-Translational Modifications Regulate Heterochromatin Formation and Maintenance. Cells, 2020, 9, 1460. | 1.8 | 16 |
| 393 | The self-stirred genome: large-scale chromatin dynamics, its biophysical origins and implications. Current Opinion in Genetics and Development, 2020, 61, 83-90. | 1.5 | 28 |
| 394 | Biological and catalytic functions of sirtuin 6 as targets for small-molecule modulators. Journal of Biological Chemistry, 2020, 295, 11021-11041. | 1.6 | 43 |
| 395 | Unraveling the molecular interactions involved in phase separation of glucocorticoid receptor. BMC Biology, 2020, 18, 59. | 1.7 | 45 |
| 396 | Various modes of HP1a interactions with the euchromatic chromosome arms in Drosophila ovarian somatic cells. Chromosoma, 2020, 129, 201-214. | 1.0 | 6 |
| 397 | Epigenetic Switchâ€“Induced Viral Mimicry Evasion in Chemotherapy-Resistant Breast Cancer. Cancer Discovery, 2020, 10, 1312-1329. | 7.7 | 84 |
| 398 | Liquid-liquid phase separation in biology: mechanisms, physiological functions and human diseases. Science China Life Sciences, 2020, 63, 953-985. | 2.3 | 164 |
| 399 | Partitioning of cancer therapeutics in nuclear condensates. Science, 2020, 368, 1386-1392. | 6.0 | 281 |

| # | Article | IF | Citations |
|---|---|---|---|
| 400 | Tidying-up the plant nuclear space: domains, functions, and dynamics. Journal of Experimental Botany, 2020, 71, 5160-5178. | 2.4 | 20 |
| 401 | The Role of Liquidâ€"Liquid Phase Separation in the Compartmentalization of Cell Nucleus and Spatial Genome Organization. Biochemistry (Moscow), 2020, 85, 643-650. | 0.7 | 30 |
| 402 | Divergence, Convergence, and Therapeutic Implications: A Cell Biology Perspective of C9ORF72-ALS/FTD. Molecular Neurodegeneration, 2020, 15, 34. | 4.4 | 32 |
| 403 | 1Q12 Loci Movement in the Interphase Nucleus Under the Action of ROS Is an Important Component of the Mechanism That Determines Copy Number Variation of Satellite III (1q12) in Health and Schizophrenia. Frontiers in Cell and Developmental Biology, 2020, 8, 386. | 1.8 | 12 |
| 404 | Roles of the BRD4 short isoform in phase separation and active gene transcription. Nature Structural and Molecular Biology, 2020, 27, 333-341. | 3.6 | 85 |
| 405 | A multi-layered structure of the interphase chromocenter revealed by proximity-based biotinylation. Nucleic Acids Research, 2020, 48, 4161-4178. | 6.5 | 11 |
| 406 | Imaging of DNA and RNA in Living Eukaryotic Cells to Reveal Spatiotemporal Dynamics of Gene Expression. Annual Review of Biochemistry, 2020, 89, 159-187. | 5.0 | 43 |
| 407 | Biological phase separation: cell biology meets biophysics. Biophysical Reviews, 2020, 12, 519-539. | 1.5 | 125 |
| 408 | Dissipative Self-Assembly of Dynamic Multicompartmentalized Microsystems with Light-Responsive Behaviors. CheM, 2020, 6, 1160-1171. | 5.8 | 37 |
| 409 | Emergent properties of mitotic chromosomes. Current Opinion in Cell Biology, 2020, 64, 43-49. | 2.6 | 11 |
| 410 | Heterochromatin protein 1 (HP1): interactions with itself and chromatin components. Biophysical Reviews, 2020, 12, 387-400. | 1.5 | 52 |
| 411 | Who Rules the Cell? An Epi-Tale of Histone, DNA, RNA, and the Metabolic Deep State. Frontiers in Plant Science, 2020, 11, 181. | 1.7 | 13 |
| 412 | Pericentromeric heterochromatin is hierarchically organized and spatially contacts H3K9me2 islands in euchromatin. PLoS Genetics, 2020, 16, e1008673. | 1.5 | 32 |
| 413 | 4D Genome Rewiring during Oncogene-Induced and Replicative Senescence. Molecular Cell, 2020, 78, 522-538.e9. | 4.5 | 107 |
| 414 | Ultrastructural Details of Mammalian Chromosome Architecture. Molecular Cell, 2020, 78, 554-565.e7. | 4.5 | 359 |
| 415 | Distinct features of nucleolus-associated domains in mouse embryonic stem cells. Chromosoma, 2020, 129, 121-139. | 1.0 | 23 |
| 416 | pH-Controlled Coacervateâ€"Membrane Interactions within Liposomes. ACS Nano, 2020, 14, 4487-4498. | 7.3 | 94 |
| 417 | Nonspecific characteristics of macromolecules create specific effects in living cells. Biophysical Reviews, 2020, 12, 425-434. | 1.5 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 418 | Liquid-liquid phase separation and extracellular multivalent interactions in the tale of galectin-3. Nature Communications, 2020, 11, 1229. | 5.8 | 66 |
| 419 | Emerging roles of cytoskeletal proteins in regulating gene expression and genome organization during differentiation. Nucleus, 2020, 11, 53-65. | 0.6 | 11 |
| 420 | Effects of Mutations in the Drosophila melanogaster Rif1 Gene on the Replication and Underreplication of Pericentromeric Heterochromatin in Salivary Gland Polytene Chromosomes. Cells, 2020, 9, 1501. | 1.8 | 5 |
| 421 | CDK-Regulated Phase Separation Seeded by Histone Genes Ensures Precise Growth and Function of Histone Locus Bodies. Developmental Cell, 2020, 54, 379-394.e6. | 3.1 | 55 |
| 422 | Polymer physics indicates chromatin folding variability across single-cells results from state degeneracy in phase separation. Nature Communications, 2020, 11, 3289. | 5.8 | 79 |
| 423 | Heterochromatin Morphodynamics in Late Oogenesis and Early Embryogenesis of Mammals. Cells, 2020, 9, 1497. | 1.8 | 16 |
| 424 | Specialization of nuclear membrane in eukaryotes. Journal of Cell Science, 2020, 133, . | 1.2 | 10 |
| 425 | Valence and patterning of aromatic residues determine the phase behavior of prion-like domains. Science, 2020, 367, 694-699. | 6.0 | 675 |
| 426 | Mouse Heterochromatin Adopts Digital Compaction States without Showing Hallmarks of HP1-Driven Liquid-Liquid Phase Separation. Molecular Cell, 2020, 78, 236-249.e7. | 4.5 | 214 |
| 427 | Nuclear bodies formed by polyQ-ataxin-1 protein are liquid RNA/protein droplets with tunable dynamics. Scientific Reports, 2020, 10, 1557. | 1.6 | 15 |
| 428 | Rett syndrome-causing mutations compromise MeCP2-mediated liquidâ€“liquid phase separation of chromatin. Cell Research, 2020, 30, 393-407. | 5.7 | 80 |
| 429 | Nucleolar Organization and Functions in Health and Disease. Cells, 2020, 9, 526. | 1.8 | 21 |
| 430 | Phase separation in a two-dimensional binary colloidal mixture by quorum sensing activity. Physical Review E, 2020, 101, 022606. | 0.8 | 5 |
| 431 | Two genomes, one cell: Mitochondrial-nuclear coordination via epigenetic pathways. Molecular Metabolism, 2020, 38, 100942. | 3.0 | 55 |
| 432 | Mechanisms and Functions of Chromosome Compartmentalization. Trends in Biochemical Sciences, 2020, 45, 385-396. | 3.7 | 159 |
| 433 | Lamina-Dependent Stretching and Unconventional Chromosome Compartments in Early C.Âelegans Embryos. Molecular Cell, 2020, 78, 96-111.e6. | 4.5 | 43 |
| 434 | Prospero Phase-Separating the Way to Neuronal Differentiation. Developmental Cell, 2020, 52, 251-252. | 3.1 | 1 |
| 435 | Role of Chain Flexibility in Asymmetric Polyelectrolyte Complexation in Salt Solutions. Macromolecules, 2020, 53, 1258-1269. | 2.2 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 436 | Beads on a stringâ€"nucleosome array arrangements and folding of the chromatin fiber. Nature Structural and Molecular Biology, 2020, 27, 109-118. | 3.6 | 86 |
| 437 | RNA Droplets. Annual Review of Biophysics, 2020, 49, 247-265. | 4.5 | 102 |
| 438 | Computational approaches from polymer physics to investigate chromatin folding. Current Opinion in Cell Biology, 2020, 64, 10-17. | 2.6 | 31 |
| 439 | The CBX family of proteins in transcriptional repression and memory. Journal of Biosciences, 2020, 45, 1. | 0.5 | 32 |
| 440 | Regulation of epigenetic state by non-histone chromatin proteins and transcription factors: Implications in disease. Journal of Biosciences, 2020, 45, 1. | 0.5 | 4 |
| 441 | Phase-separation in chromatin organization. Journal of Biosciences, 2020, 45, 1. | 0.5 | 50 |
| 442 | Co-opted transposons help perpetuate conserved higher-order chromosomal structures. Genome Biology, 2020, 21, 16. | 3.8 | 57 |
| 443 | Recent advances in the spatial organization of the mammalian genome. Journal of Biosciences, 2020, 45, 1. | 0.5 | 12 |
| 444 | Viewing Nuclear Architecture through the Eyes of Nocturnal Mammals. Trends in Cell Biology, 2020, 30, 276-289. | 3.6 | 30 |
| 445 | The Interchromatin Compartment Participates in the Structural and Functional Organization of the Cell Nucleus. BioEssays, 2020, 42, e1900132. | 1.2 | 65 |
| 446 | Chromosome Conformation Capture and Beyond: Toward an Integrative View of Chromosome Structure and Function. Molecular Cell, 2020, 77, 688-708. | 4.5 | 151 |
| 447 | Physical Principles Underlying the Complex Biology of Intracellular Phase Transitions. Annual Review of Biophysics, 2020, 49, 107-133. | 4.5 | 544 |
| 448 | Bridging-induced microphase separation: photobleaching experiments, chromatin domains and the need for active reactions. Briefings in Functional Genomics, 2020, 19, 111-118. | 1.3 | 28 |
| 449 | Phase-Separated Multienzyme Biosynthesis. Biomacromolecules, 2020, 21, 2391-2399. | 2.6 | 24 |
| 450 | MeCP2 and Chromatin Compartmentalization. Cells, 2020, 9, 878. | 1.8 | 22 |
| 451 | Three-dimensional nuclear organization in Arabidopsis thaliana. Journal of Plant Research, 2020, 133, 479-488. | 1.2 | 18 |
| 452 | Architectural proteins for the formation and maintenance of the 3D genome. Science China Life Sciences, 2020, 63, 795-810. | 2.3 | 11 |
| 453 | Centromeric RNA and Its Function at and Beyond Centromeric Chromatin. Journal of Molecular Biology, 2020, 432, 4257-4269. | 2.0 | 25 |

| # | Article | IF | Citations |
|---|---|---|---|
| 454 | Chromatin Hyperacetylation Impacts Chromosome Folding by Forming a Nuclear Subcompartment. Molecular Cell, 2020, 78, 112-126.e12. | 4.5 | 62 |
| 455 | On the relations of phase separation and Hi-C maps to epigenetics. Royal Society Open Science, 2020, 7, 191976. | 1.1 | 18 |
| 456 | Writing and Reading Histone H3 Lysine 9 Methylation in Arabidopsis. Frontiers in Plant Science, 2020, 11, 452. | 1.7 | 32 |
| 457 | Cytosine Methylation Enhances DNA Condensation Revealed by Equilibrium Measurements Using Magnetic Tweezers. Journal of the American Chemical Society, 2020, 142, 9203-9209. | 6.6 | 24 |
| 458 | An analytical theory to describe sequence-specific inter-residue distance profiles for polyampholytes and intrinsically disordered proteins. Journal of Chemical Physics, 2020, 152, 161102. | 1.2 | 31 |
| 459 | Molecular effects of dADD1 misexpression in chromatin organization and transcription. BMC Molecular and Cell Biology, 2020, 21, 17. | 1.0 | 6 |
| 460 | Protein assembly systems in natural and synthetic biology. BMC Biology, 2020, 18, 35. | 1.7 | 44 |
| 461 | Repetitive RNAs as Regulators of Chromatin-Associated Subcompartment Formation by Phase Separation. Journal of Molecular Biology, 2020, 432, 4270-4286. | 2.0 | 53 |
| 462 | Hi-D: nanoscale mapping of nuclear dynamics in single living cells. Genome Biology, 2020, 21, 95. | 3.8 | 69 |
| 463 | Competing Protein-RNA Interaction Networks Control Multiphase Intracellular Organization. Cell, 2020, 181, 306-324.e28. | 13.5 | 543 |
| 464 | A chromatin perspective on metabolic and genotoxic impacts on hematopoietic stem and progenitor cells. Cellular and Molecular Life Sciences, 2020, 77, 4031-4047. | 2.4 | 7 |
| 465 | How to maintain the genome in nuclear space. Current Opinion in Cell Biology, 2020, 64, 58-66. | 2.6 | 30 |
| 466 | Mesoscale organization of the chromatin fiber. Current Opinion in Genetics and Development, 2020, 61, 32-36. | 1.5 | 27 |
| 467 | Just Took a DNA Test, Turns Out 100% Not That Phase. Molecular Cell, 2020, 78, 193-194. | 4.5 | 10 |
| 468 | Weak interactions in higher-order chromatin organization. Nucleic Acids Research, 2020, 48, 4614-4626. | 6.5 | 50 |
| 469 | Lamina-associated domains: peripheral matters and internal affairs. Genome Biology, 2020, 21, 85. | 3.8 | 162 |
| 470 | Single cell analysis pushes the boundaries of TAD formation and function. Current Opinion in Genetics and Development, 2020, 61, 25-31. | 1.5 | 14 |
| 471 | Genome organization: Tag it, move it, place it. Current Opinion in Cell Biology, 2021, 68, 90-97. | 2.6 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 472 | A framework for understanding the functions of biomolecular condensates across scales. Nature Reviews Molecular Cell Biology, 2021, 22, 215-235. | 16.1 | 450 |
| 473 | In Pursuit of Designing Multicellular Engineered Living Systems: A Fluid Mechanical Perspective. Annual Review of Fluid Mechanics, 2021, 53, 411-437. | 10.8 | 6 |
| 474 | Nuclear Envelope and Nuclear Pore Complexes in Neurodegenerative Diseasesâ€"New Perspectives for Therapeutic Interventions. Molecular Neurobiology, 2021, 58, 983-995. | 1.9 | 16 |
| 475 | Volumetric Compression Induces Intracellular Crowding to Control Intestinal Organoid Growth via Wnt/Î²-Catenin Signaling. Cell Stem Cell, 2021, 28, 63-78.e7. | 5.2 | 62 |
| 476 | Towards Decoding the Sequence-Based Grammar Governing the Functions of Intrinsically Disordered Protein Regions. Journal of Molecular Biology, 2021, 433, 166724. | 2.0 | 29 |
| 477 | Three-dimensional chromatin organization in cardiac development and disease. Journal of Molecular and Cellular Cardiology, 2021, 151, 89-105. | 0.9 | 13 |
| 478 | Regulatory mechanisms governing chromatin organization and function. Current Opinion in Cell Biology, 2021, 70, 10-17. | 2.6 | 27 |
| 479 | The emergence of phase separation as an organizing principle in bacteria. Biophysical Journal, 2021, 120, 1123-1138. | 0.2 | 108 |
| 480 | Enhancer-promoter communication: hubs or loops?. Current Opinion in Genetics and Development, 2021, 67, 5-9. | 1.5 | 85 |
| 481 | Comparative nuclear matrix proteome analysis of skeletal muscle cells in different cellular states. Cell Biology International, 2021, 45, 580-598. | 1.4 | 2 |
| 482 | RNA nucleation by MSL2 induces selective X chromosome compartmentalization. Nature, 2021, 589, 137-142. | 13.7 | 34 |
| 483 | Real-Time Study of Protein Phase Separation with Spatiotemporal Analysis of Single-Nanoparticle Trajectories. ACS Nano, 2021, 15, 539-549. | 7.3 | 18 |
| 484 | Nuclear Condensates of p300 Formed Though the Structured Catalytic Core Can Act as a Storage Pool of p300 with Reduced HAT Activity. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 485 | Nuclear organization and regulation of the differentiated state. Cellular and Molecular Life Sciences, 2021, 78, 3141-3158. | 2.4 | 20 |
| 486 | Anomalous patterns of Saffmanâ€"Taylor fingering instability during a metastable phase separation. Physical Chemistry Chemical Physics, 2021, 23, 10926-10935. | 1.3 | 6 |
| 488 | The Changes of the Nuclear Landscape Upon Stimulation of Neuronal Cells are Dependent on the Histone Deacetylase HSAC1. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 490 | m <sup>6</sup> A deposition is regulated by PRMT1â€mediated arginine methylation of METTL14 in its disordered Câ€terminal region. EMBO Journal, 2021, 40, e106309. | 3.5 | 30 |
| 491 | Coacervate formation studied by explicit solvent coarse-grain molecular dynamics with the Martini model. Chemical Science, 2021, 12, 8521-8530. | 3.7 | 37 |

| # | Article | IF | Citations |
|---|---|---|---|
| 492 | Modeling the 3D genome of plants. Nucleus, 2021, 12, 65-81. | 0.6 | 4 |
| 495 | Formation and Function of Liquid-Like Viral Factories in Negative-Sense Single-Stranded RNA Virus Infections. Viruses, 2021, 13, 126. | 1.5 | 27 |
| 497 | RNA architecture influences plant biology. Journal of Experimental Botany, 2021, 72, 4144-4160. | 2.4 | 12 |
| 498 | RNA-seeded membraneless bodies: Role of tandemly repeated RNA. Advances in Protein Chemistry and Structural Biology, 2021, 126, 151-193. | 1.0 | 9 |
| 499 | Concepts \| No Membrane, No Problem: Cellular Organization by Biomolecular Condensates. , 2021, , 113-133. | | 0 |
| 500 | Self-sorting in supramolecular assemblies. Soft Matter, 2021, 17, 3902-3912. | 1.2 | 14 |
| 501 | Nanobody-mediated control of gene expression and epigenetic memory. Nature Communications, 2021, 12, 537. | 5.8 | 25 |
| 503 | Structures of monomeric and dimeric PRC2:EZH1 reveal flexible modules involved in chromatin compaction. Nature Communications, 2021, 12, 714. | 5.8 | 54 |
| 504 | DNA structure \| Chromosome Organization and Structure, Overview. , 2021, , 18-28. | | 0 |
| 505 | The human origin recognition complex is essential for pre-RC assembly, mitosis, and maintenance of nuclear structure. ELife, 2021, 10, . | 2.8 | 14 |
| 506 | Phase separation and histone epigenetics in genome regulation. Current Opinion in Solid State and Materials Science, 2021, 25, 100892. | 5.6 | 6 |
| 508 | Sir3 mediates long-range chromosome interactions in budding yeast. Genome Research, 2021, 31, 411-425. | 2.4 | 16 |
| 511 | Engineering 3D genome organization. Nature Reviews Genetics, 2021, 22, 343-360. | 7.7 | 38 |
| 513 | Fundamental Challenges and Outlook in Simulating Liquidâ€"Liquid Phase Separation of Intrinsically Disordered Proteins. Journal of Physical Chemistry Letters, 2021, 12, 1644-1656. | 2.1 | 20 |
| 514 | Physical mechanisms of chromatin spatial organization. FEBS Journal, 2022, 289, 1180-1190. | 2.2 | 10 |
| 515 | Characterization of functional disordered regions within chromatin-associated proteins. IScience, 2021, 24, 102070. | 1.9 | 27 |
| 516 | Interplay of folded domains and the disordered low-complexity domain in mediating hnRNPA1 phase separation. Nucleic Acids Research, 2021, 49, 2931-2945. | 6.5 | 81 |
| 517 | Bridging-induced phase separation induced by cohesin SMC protein complexes. Science Advances, 2021, 7, . | 4.7 | 95 |

| # | Article | IF | Citations |
|---|---|---|---|
| 518 | Selfâ€assembly of multiâ€component mitochondrial nucleoids via phase separation. EMBO Journal, 2021, 40, e107165. | 3.5 | 36 |
| 519 | The 20S proteasome activator PA28Î³ controls the compaction of chromatin. Journal of Cell Science, 2021, 134, . | 1.2 | 4 |
| 520 | Heterochromatin protein 1 beta regulates neural and neural crest development by repressing pluripotencyâ€associated gene pou5f3.2/oct25 in Xenopus. Developmental Dynamics, 2021, 250, 1113-1124. | 0.8 | 3 |
| 521 | Histone modifications form a cell-type-specific chromosomal bar code that persists through the cell cycle. Scientific Reports, 2021, 11, 3009. | 1.6 | 11 |
| 523 | Signalingâ€toâ€chromatin pathways in the immune system. Immunological Reviews, 2021, 300, 37-53. | 2.8 | 10 |
| 524 | 1,6-hexanediol rapidly immobilizes and condenses chromatin in living human cells. Life Science Alliance, 2021, 4, e202001005. | 1.3 | 59 |
| 525 | Functional mechanisms and abnormalities of the nuclear lamina. Nature Cell Biology, 2021, 23, 116-126. | 4.6 | 52 |
| 526 | Biomolecular Condensates and Cancer. Cancer Cell, 2021, 39, 174-192. | 7.7 | 157 |
| 527 | Single molecule microscopy reveals key physical features of repair foci in living cells. ELife, 2021, 10, . | 2.8 | 55 |
| 529 | Biophysics of Phase Separation of Disordered Proteins Is Governed by Balance between Short- And Long-Range Interactions. Journal of Physical Chemistry B, 2021, 125, 2202-2211. | 1.2 | 42 |
| 530 | Computational Screening of Phase-separating Proteins. Genomics, Proteomics and Bioinformatics, 2021, 19, 13-24. | 3.0 | 36 |
| 533 | Dri1 mediates heterochromatin assembly via RNAi and histone deacetylation. Genetics, 2021, 218, . | 1.2 | 4 |
| 534 | HP1 proteins compact DNA into mechanically and positionally stable phase separated domains. ELife, 2021, 10, . | 2.8 | 119 |
| 535 | Transcription organizes euchromatin via microphase separation. Nature Communications, 2021, 12, 1360. | 5.8 | 83 |
| 536 | In search of lost time: Enhancers as modulators of timing in lymphocyte development and differentiation. Immunological Reviews, 2021, 300, 134-151. | 2.8 | 5 |
| 537 | Histone chaperone CAFâ€1 promotes HIVâ€1 latency by leading the formation of phaseâ€separated suppressive nuclear bodies. EMBO Journal, 2021, 40, e106632. | 3.5 | 27 |
| 538 | Properties of repression condensates in living Ciona embryos. Nature Communications, 2021, 12, 1561. | 5.8 | 20 |
| 539 | Spatial Organization of Chromatin: Transcriptional Control of Adaptive Immune Cell Development. Frontiers in Immunology, 2021, 12, 633825. | 2.2 | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 541 | Regulation of HP1 protein by phosphorylation during transcriptional repression and cell cycle. Journal of Biochemistry, 2021, 169, 629-632. | 0.9 | 1 |
| 542 | Interplay between genome organization and epigenomic alterations of pericentromeric DNA in cancer. Journal of Genetics and Genomics, 2021, 48, 184-197. | 1.7 | 7 |
| 544 | Tunable, division-independent control of gene activation timing by a polycomb switch. Cell Reports, 2021, 34, 108888. | 2.9 | 19 |
| 545 | Integration of Data from Liquidâ€"Liquid Phase Separation Databases Highlights Concentration and Dosage Sensitivity of LLPS Drivers. International Journal of Molecular Sciences, 2021, 22, 3017. | 1.8 | 29 |
| 546 | Regulation of Nuclear Mechanics and the Impact on DNA Damage. International Journal of Molecular Sciences, 2021, 22, 3178. | 1.8 | 28 |
| 547 | Chemical Insights into Liquid-Liquid Phase Separation in Molecular Biology. Bulletin of the Chemical Society of Japan, 2021, 94, 1045-1058. | 2.0 | 24 |
| 548 | Parameter-free molecular super-structures quantification in single-molecule localization microscopy. Journal of Cell Biology, 2021, 220, . | 2.3 | 14 |
| 549 | Membraneless organelles restructured and built by pandemic viruses: HIV-1 and SARS-CoV-2. Journal of Molecular Cell Biology, 2021, 13, 259-268. | 1.5 | 28 |
| 550 | Beyond the Nucleosome: Nucleosome-Protein Interactions and Higher Order Chromatin Structure. Journal of Molecular Biology, 2021, 433, 166827. | 2.0 | 12 |
| 551 | Chemical Dimerization-Induced Protein Condensates on Telomeres. Journal of Visualized Experiments, 2021, , . | 0.2 | 2 |
| 552 | Reflections on the organization and the physical state of chromatin in eukaryotic cells. Genome, 2021, 64, 311-325. | 0.9 | 10 |
| 554 | HP1 drives de novo 3D genome reorganization in early Drosophila embryos. Nature, 2021, 593, 289-293. | 13.7 | 76 |
| 555 | Microscopic Dynamics of Liquid-Liquid Phase Separation and Domain Coarsening in a Protein Solution Revealed by X-Ray Photon Correlation Spectroscopy. Physical Review Letters, 2021, 126, 138004. | 2.9 | 38 |
| 558 | The Stochastic Genome and Its Role in Gene Expression. Cold Spring Harbor Perspectives in Biology, 2021, 13, a040386. | 2.3 | 18 |
| 559 | Unfolding of the chromatin fiber driven by overexpression of noninteracting bridging factors. Biophysical Journal, 2021, 120, 1247-1256. | 0.2 | 8 |
| 560 | The key role of solvent in condensation: Mapping water in liquid-liquid phase-separated FUS. Biophysical Journal, 2021, 120, 1266-1275. | 0.2 | 71 |
| 561 | The shifting shape of genomes: dynamics of heterochromatin interactions at the nuclear lamina. Current Opinion in Genetics and Development, 2021, 67, 163-173. | 1.5 | 25 |
| 562 | Phase separation of DNA: From past to present. Biophysical Journal, 2021, 120, 1139-1149. | 0.2 | 36 |

| # | Article | IF | Citations |
|---|---|---|---|
| 563 | Suppression of liquidâ€"liquid phase separation by 1,6-hexanediol partially compromises the 3D genome organization in living cells. Nucleic Acids Research, 2021, 49, 10524-10541. | 6.5 | 68 |
| 569 | Consistent Force Field Captures Homologue-Resolved HP1 Phase Separation. Journal of Chemical Theory and Computation, 2021, 17, 3134-3144. | 2.3 | 51 |
| 571 | Establishment of heterochromatin in domain-size-dependent bursts. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 16 |
| 572 | Studying phase separation in confinement. Current Opinion in Colloid and Interface Science, 2021, 52, 101419. | 3.4 | 18 |
| 573 | Modern optical microscopy methods to study biomolecular condensates. Current Opinion in Colloid and Interface Science, 2021, 52, 101421. | 3.4 | 6 |
| 574 | Get closer and make hotspots: liquidâ€"liquid phase separation in plants. EMBO Reports, 2021, 22, e51656. | 2.0 | 33 |
| 575 | Phase Separation during Germline Development. Trends in Cell Biology, 2021, 31, 254-268. | 3.6 | 41 |
| 576 | Epigenetic memory of cell fate commitment. Current Opinion in Cell Biology, 2021, 69, 80-87. | 2.6 | 18 |
| 577 | Spatiotemporal organization of coacervate microdroplets. Current Opinion in Colloid and Interface Science, 2021, 52, 101420. | 3.4 | 21 |
| 578 | Physical Nature of Chromatin in the Nucleus. Cold Spring Harbor Perspectives in Biology, 2021, 13, a040675. | 2.3 | 34 |
| 579 | The HSV-1 Transcription Factor ICP4 Confers Liquid-Like Properties to Viral Replication Compartments. International Journal of Molecular Sciences, 2021, 22, 4447. | 1.8 | 31 |
| 582 | Mechanisms and regulation underlying membraneless organelle plasticity control. Journal of Molecular Cell Biology, 2021, 13, 239-258. | 1.5 | 14 |
| 583 | A Data-Driven Hydrophobicity Scale for Predicting Liquidâ€"Liquid Phase Separation of Proteins. Journal of Physical Chemistry B, 2021, 125, 4046-4056. | 1.2 | 71 |
| 584 | Single-molecule tracking of transcription protein dynamics in living cells: seeing is believing, but what are we seeing?. Current Opinion in Genetics and Development, 2021, 67, 94-102. | 1.5 | 40 |
| 585 | The language of chromatin modification in human cancers. Nature Reviews Cancer, 2021, 21, 413-430. | 12.8 | 179 |
| 586 | Generation and Biochemical Characterization of Phaseâ€Separated Droplets Formed by Nucleic Acid Binding Proteins: Using HP1 as a Model System. Current Protocols, 2021, 1, e109. | 1.3 | 6 |
| 588 | Loss of EZH2-like or SU(VAR)3â€"9-like proteins causes simultaneous perturbations in H3K27 and H3K9 tri-methylation and associated developmental defects in the fungus Podospora anserina. Epigenetics and Chromatin, 2021, 14, 22. | 1.8 | 18 |
| 589 | Mitochondrial cytochrome <i>c</i> shot towards histone chaperone condensates in the nucleus. FEBS Open Bio, 2021, 11, 2418-2440. | 1.0 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 590 | Nucleosome plasticity is a critical element of chromatin liquidâ€"liquid phase separation and multivalent nucleosome interactions. Nature Communications, 2021, 12, 2883. | 5.8 | 75 |
| 591 | Discovery of Plasma Membrane-Associated RNAs through APEX-seq. Cell Biochemistry and Biophysics, 2021, 79, 905-917. | 0.9 | 8 |
| 592 | Advances in higher-order chromatin architecture: the move towards 4D genome. BMB Reports, 2021, 54, 233-245. | 1.1 | 10 |
| 593 | Transcription Factor Dynamics. Cold Spring Harbor Perspectives in Biology, 2021, 13, a040949. | 2.3 | 37 |
| 594 | 3D genomics across the tree of life reveals condensin II as a determinant of architecture type. Science, 2021, 372, 984-989. | 6.0 | 132 |
| 596 | m6A RNA methylation of major satellite repeat transcripts facilitates chromatin association and RNA:DNA hybrid formation in mouse heterochromatin. Nucleic Acids Research, 2021, 49, 5568-5587. | 6.5 | 21 |
| 598 | Cooperative DNA looping by PRC2 complexes. Nucleic Acids Research, 2021, 49, 6238-6248. | 6.5 | 19 |
| 599 | Rapid nucleus-scale reorganization of chromatin in neurons enables transcriptional adaptation for memory consolidation. PLoS ONE, 2021, 16, e0244038. | 1.1 | 9 |
| 600 | Mesoscale phase separation of chromatin in the nucleus. ELife, 2021, 10, . | 2.8 | 53 |
| 602 | Single-molecule imaging of epigenetic complexes in living cells: insights from studies on Polycomb group proteins. Nucleic Acids Research, 2021, 49, 6621-6637. | 6.5 | 8 |
| 603 | Low complexity domains, condensates, and stem cell pluripotency. World Journal of Stem Cells, 2021, 13, 416-438. | 1.3 | 6 |
| 604 | Mutations inhibiting KDM4B drive ALT activation in ATRX-mutated glioblastomas. Nature Communications, 2021, 12, 2584. | 5.8 | 23 |
| 605 | Attach and stretch: Emerging roles for genomeâ€"lamina contacts in shaping the 3D genome. Current Opinion in Cell Biology, 2021, 70, 51-57. | 2.6 | 18 |
| 606 | Molecular Complexes at Euchromatin, Heterochromatin and Centromeric Chromatin. International Journal of Molecular Sciences, 2021, 22, 6922. | 1.8 | 35 |
| 607 | Transcriptionally inactive hepatitis B virus episome DNA preferentially resides in the vicinity of chromosome 19 in 3D host genome upon infection. Cell Reports, 2021, 35, 109288. | 2.9 | 24 |
| 608 | Chromosome compartments on the inactive X guide TAD formation independently of transcription during X-reactivation. Nature Communications, 2021, 12, 3499. | 5.8 | 29 |
| 609 | Physical theory of biological noise buffering by multicomponent phase separation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 43 |
| 610 | Biochemical Timekeeping Via Reentrant Phase Transitions. Journal of Molecular Biology, 2021, 433, 166794. | 2.0 | 22 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 611 | Unravelling HP1 functions: post-transcriptional regulation of stem cell fate. Chromosoma, 2021, 130, 103-111. | 1.0 | 5 |
| 612 | Transcriptomic and Epigenomic Landscape in Rett Syndrome. Biomolecules, 2021, 11, 967. | 1.8 | 10 |
| 613 | Tet1 regulates epigenetic remodeling of the pericentromeric heterochromatin and chromocenter organization in DNA hypomethylated cells. PLoS Genetics, 2021, 17, e1009646. | 1.5 | 6 |
| 616 | Interphase Chromatin Undergoes a Local Sol-Gel Transition upon Cell Differentiation. Physical Review Letters, 2021, 126, 228101. | 2.9 | 37 |
| 617 | Principles of 3D compartmentalization of the human genome. Cell Reports, 2021, 35, 109330. | 2.9 | 60 |
| 618 | Establishment of H3K9me3-dependent heterochromatin during embryogenesis in Drosophila miranda. ELife, 2021, 10, . | 2.8 | 22 |
| 619 | Site-specific ubiquitylation acts as a regulator of linker histone H1. Nature Communications, 2021, 12, 3497. | 5.8 | 17 |
| 620 | Solvent Exposure and Ionic Condensation Drive Fuzzy Dimerization of Disordered Heterochromatin Protein Sequence. Biomolecules, 2021, 11, 915. | 1.8 | 4 |
| 621 | HP1Î± is a chromatin crosslinker that controls nuclear and mitotic chromosome mechanics. ELife, 2021, 10, . | 2.8 | 69 |
| 622 | Pressure and Temperature Phase Diagram for Liquidâ€"Liquid Phase Separation of the RNA-Binding Protein Fused in Sarcoma. Journal of Physical Chemistry B, 2021, 125, 6821-6829. | 1.2 | 30 |
| 624 | Probing Chromatin Compaction and Its Epigenetic States in situ With Single-Molecule Localization-Based Super-Resolution Microscopy. Frontiers in Cell and Developmental Biology, 2021, 9, 653077. | 1.8 | 5 |
| 625 | Dynamic asymmetry and why chromatin defies simple physical definitions. Current Opinion in Cell Biology, 2021, 70, 116-122. | 2.6 | 3 |
| 626 | The zinc finger protein CLAMP promotes long-range chromatin interactions that mediate dosage compensation of the Drosophila male X-chromosome. Epigenetics and Chromatin, 2021, 14, 29. | 1.8 | 8 |
| 628 | Single-Molecule Tracking of Chromatin-Associated Proteins in the <i>C.Âelegans</i> Gonad. Journal of Physical Chemistry B, 2021, 125, 6162-6170. | 1.2 | 4 |
| 629 | Molecular Epigenetics: Chemical Biology Tools Come of Age. Annual Review of Biochemistry, 2021, 90, 287-320. | 5.0 | 9 |
| 630 | RNA and liquid-liquid phase separation. Non-coding RNA Research, 2021, 6, 92-99. | 2.4 | 52 |
| 631 | Phase separation drives aberrant chromatin looping and cancer development. Nature, 2021, 595, 591-595. | 13.7 | 197 |
| 632 | Liquidâ€"Liquid Phase Separation in Chromatin. Cold Spring Harbor Perspectives in Biology, 2022, 14, a040683. | 2.3 | 80 |

| # | Article | IF | Citations |
|---|---|---|---|
| 633 | Sequence determinants of in cell condensate morphology, dynamics, and oligomerization as measured by number and brightness analysis. Cell Communication and Signaling, 2021, 19, 65. | 2.7 | 12 |
| 634 | Protein phase separation and its role in chromatin organization and diseases. Biomedicine and Pharmacotherapy, 2021, 138, 111520. | 2.5 | 9 |
| 635 | Live imaging and biophysical modeling support a button-based mechanism of somatic homolog pairing in Drosophila. ELife, 2021, 10, . | 2.8 | 21 |
| 636 | Quadruplex Folding Promotes the Condensation of Linker Histones and DNAs via Liquidâ€"Liquid Phase Separation. Journal of the American Chemical Society, 2021, 143, 9849-9857. | 6.6 | 36 |
| 637 | Liquidâ€"Liquid Phase Separation in the Presence of Macromolecular Crowding and State-dependent Kinetics. International Journal of Molecular Sciences, 2021, 22, 6675. | 1.8 | 9 |
| 638 | Insights into gene regulation: From regulatory genomic elements to DNA-protein and protein-protein interactions. Current Opinion in Cell Biology, 2021, 70, 58-66. | 2.6 | 19 |
| 639 | Histone acylations and chromatin dynamics: concepts, challenges, and links to metabolism. EMBO Reports, 2021, 22, e52774. | 2.0 | 63 |
| 640 | The roles of inducible chromatin and transcriptional memory in cellular defense system responses to redox-active pollutants. Free Radical Biology and Medicine, 2021, 170, 85-108. | 1.3 | 3 |
| 642 | TAD cliques predict key features of chromatin organization. BMC Genomics, 2021, 22, 499. | 1.2 | 8 |
| 643 | Nuclear condensates of p300 formed though the structured catalytic core can act as a storage pool of p300 with reduced HAT activity. Nature Communications, 2021, 12, 4618. | 5.8 | 22 |
| 644 | PRC2 activity, recruitment, and silencing: a comparative perspective. Trends in Plant Science, 2021, 26, 1186-1198. | 4.3 | 42 |
| 645 | Polymer models are a versatile tool to study chromatin 3D organization. Biochemical Society Transactions, 2021, 49, 1675-1684. | 1.6 | 8 |
| 646 | A Tale of Two States: Pluripotency Regulation of Telomeres. Frontiers in Cell and Developmental Biology, 2021, 9, 703466. | 1.8 | 4 |
| 647 | Single-molecule imaging of chromatin remodelers reveals role of ATPase in promoting fast kinetics of target search and dissociation from chromatin. ELife, 2021, 10, . | 2.8 | 39 |
| 648 | New Family Members of FG Repeat Proteins and Their Unexplored Roles During Phase Separation. Frontiers in Cell and Developmental Biology, 2021, 9, 708702. | 1.8 | 7 |
| 649 | Size conservation emerges spontaneously in biomolecular condensates formed by scaffolds and surfactant clients. Scientific Reports, 2021, 11, 15241. | 1.6 | 33 |
| 650 | Induction and Monitoring of DNA Phase Separation in Living Cells by a Light-Switching Ruthenium Complex. Journal of the American Chemical Society, 2021, 143, 11370-11381. | 6.6 | 19 |
| 651 | Heterochromatin-dependent transcription of satellite DNAs in the Drosophila melanogaster female germline. ELife, 2021, 10, . | 2.8 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 652 | Phosphorylation of the HP1Î² hinge region sequesters KAP1 in heterochromatin and promotes the exit from naÃ¯ve pluripotency. Nucleic Acids Research, 2021, 49, 7406-7423. | 6.5 | 9 |
| 653 | Nuclear Protein Condensates and Their Properties in Regulation of Gene Expression. Journal of Molecular Biology, 2022, 434, 167151. | 2.0 | 21 |
| 654 | Salt-Dependent Conformational Changes of Intrinsically Disordered Proteins. Journal of Physical Chemistry Letters, 2021, 12, 6684-6691. | 2.1 | 32 |
| 655 | 3D or Not 3D: Shaping the Genome during Development. Cold Spring Harbor Perspectives in Biology, 2022, 14, a040188. | 2.3 | 11 |
| 656 | Epigenetic rewriting at centromeric DNA repeats leads to increased chromatin accessibility and chromosomal instability. Epigenetics and Chromatin, 2021, 14, 35. | 1.8 | 6 |
| 657 | The Drosophila HP1 family is associated with active gene expression across chromatin contexts. Genetics, 2021, 219, . | 1.2 | 8 |
| 658 | Complete loss of H3K9 methylation dissolves mouse heterochromatin organization. Nature Communications, 2021, 12, 4359. | 5.8 | 41 |
| 659 | Multiscale modeling of genome organization with maximum entropy optimization. Journal of Chemical Physics, 2021, 155, 010901. | 1.2 | 38 |
| 660 | Spatial Organization of Chromatin: Emergence of Chromatin Structure During Development. Annual Review of Cell and Developmental Biology, 2021, 37, 199-232. | 4.0 | 27 |
| 661 | In vivo analysis reveals that ATP-hydrolysis couples remodeling to SWI/SNF release from chromatin. ELife, 2021, 10, . | 2.8 | 17 |
| 662 | Condensation of pericentrin proteins in human cells illuminates phase separation in centrosome assembly. Journal of Cell Science, 2021, 134, . | 1.2 | 29 |
| 663 | HP1Î³ binding preâ€mRNA intronic repeatsÂmodulates RNA splicing decisions. EMBO Reports, 2021, 22, e52320. | 2.0 | 12 |
| 664 | How Hierarchical Interactions Make Membraneless Organelles Tick Like Clockwork. Trends in Biochemical Sciences, 2021, 46, 525-534. | 3.7 | 35 |
| 665 | SS18 regulates pluripotent-somatic transition through phase separation. Nature Communications, 2021, 12, 4090. | 5.8 | 14 |
| 666 | Interrogation of the dynamic properties of higher-order heterochromatin using CRISPR-dCas9. Molecular Cell, 2021, 81, 4287-4299.e5. | 4.5 | 21 |
| 667 | RNA impacts formation of biomolecular condensates in the nucleus. Biomedical Research, 2021, 42, 153-160. | 0.3 | 5 |
| 668 | Modulating Î±-Synuclein Liquidâ€"Liquid Phase Separation. Biochemistry, 2021, 60, 3676-3696. | 1.2 | 67 |
| 670 | Nuclear Compartments: An Incomplete Primer to Nuclear Compartments, Bodies, and Genome Organization Relative to Nuclear Architecture. Cold Spring Harbor Perspectives in Biology, 2022, 14, a041268. | 2.3 | 38 |

| # | Article | IF | Citations |
|---|---|---|---|
| 672 | Liquidâ€"liquid phase separation in human health and diseases. Signal Transduction and Targeted Therapy, 2021, 6, 290. | 7.1 | 231 |
| 673 | Phase separation in genome organization across evolution. Trends in Cell Biology, 2021, 31, 671-685. | 3.6 | 62 |
| 674 | Nuclear compartmentalization as a mechanism of quantitative control of gene expression. Nature Reviews Molecular Cell Biology, 2021, 22, 653-670. | 16.1 | 131 |
| 675 | Loss of grand histone H3 lysine 27 trimethylation domains mediated transcriptional activation in esophageal squamous cell carcinoma. Npj Genomic Medicine, 2021, 6, 65. | 1.7 | 7 |
| 676 | The intrinsically disorderly story of Ki-67. Open Biology, 2021, 11, 210120. | 1.5 | 33 |
| 679 | Integration host factor bends and bridges DNA in a multiplicity of binding modes with varying specificity. Nucleic Acids Research, 2021, 49, 8684-8698. | 6.5 | 18 |
| 680 | Chromatin Conformation in Development and Disease. Frontiers in Cell and Developmental Biology, 2021, 9, 723859. | 1.8 | 25 |
| 681 | The Nuclear Lamina. Cold Spring Harbor Perspectives in Biology, 2022, 14, a040113. | 2.3 | 28 |
| 682 | Topological Constraints with Optimal Length Promote the Formation of Chromosomal Territories at Weakened Degree of Phase Separation. Journal of Physical Chemistry B, 2021, 125, 9092-9101. | 1.2 | 4 |
| 683 | A Hypothesis: Linking Phase Separation to Meiotic Sex Chromosome Inactivation and Sex-Body Formation. Frontiers in Cell and Developmental Biology, 2021, 9, 674203. | 1.8 | 9 |
| 684 | Uncovering the Principles of Genome Folding by 3D Chromatin Modeling. Cold Spring Harbor Perspectives in Biology, 2022, 14, a039693. | 2.3 | 12 |
| 685 | Quantifying the phase separation property of chromatin-associated proteins under physiological conditions using an anti-1,6-hexanediol index. Genome Biology, 2021, 22, 229. | 3.8 | 24 |
| 687 | Targeted modulation of protein liquidâ€"liquid phase separation by evolution of amino-acid sequence. PLoS Computational Biology, 2021, 17, e1009328. | 1.5 | 21 |
| 688 | Merging Established Mechanisms with New Insights: Condensates, Hubs, and the Regulation of RNA Polymerase II Transcription. Journal of Molecular Biology, 2022, 434, 167216. | 2.0 | 44 |
| 689 | Time-dependent effect of 1,6-hexanediol on biomolecular condensates and 3D chromatin organization. Genome Biology, 2021, 22, 230. | 3.8 | 33 |
| 690 | The nucleolus from a liquid droplet perspective. Journal of Biochemistry, 2021, 170, 153-162. | 0.9 | 14 |
| 691 | Three-dimensional chromatin organization in brain function and dysfunction. Current Opinion in Neurobiology, 2021, 69, 214-221. | 2.0 | 10 |
| 692 | Uncharged Components of Single-Stranded DNA Modulate Liquidâ€"Liquid Phase Separation With Cationic Linker Histone H1. Frontiers in Cell and Developmental Biology, 2021, 9, 710729. | 1.8 | 6 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 693 | Chromatin Alterations in Neurological Disorders and Strategies of (Epi)Genome Rescue. Pharmaceuticals, 2021, 14, 765. | 1.7 | 3 |
| 694 | Polymer Modeling of 3D Epigenome Folding: Application to Drosophila. Methods in Molecular Biology, 2022, 2301, 293-305. | 0.4 | 5 |
| 696 | Chromatin Organization and Function in Drosophila. Cells, 2021, 10, 2362. | 1.8 | 7 |
| 697 | Genome Maintenance Mechanisms at the Chromatin Level. International Journal of Molecular Sciences, 2021, 22, 10384. | 1.8 | 3 |
| 698 | Characterization of Opalescence in low Volume Monoclonal Antibody Solutions Enabled by Microscale Nephelometry. Journal of Pharmaceutical Sciences, 2021, 110, 3176-3182. | 1.6 | 1 |
| 699 | Persistent mRNA localization defects and cell death in ALS neurons caused by transient cellular stress. Cell Reports, 2021, 36, 109685. | 2.9 | 18 |
| 700 | Salt dependent phase behavior of intrinsically disordered proteins from a coarse-grained model with explicit water and ions. Journal of Chemical Physics, 2021, 155, 125103. | 1.2 | 29 |
| 701 | Liquid condensation of reprogramming factor KLF4 with DNA provides a mechanism for chromatin organization. Nature Communications, 2021, 12, 5579. | 5.8 | 45 |
| 703 | The evolving complexity of DNA damage foci: RNA, condensates and chromatin in DNA double-strand break repair. DNA Repair, 2021, 105, 103170. | 1.3 | 25 |
| 704 | The Paramount Role of Drosophila melanogaster in the Study of Epigenetics: From Simple Phenotypes to Molecular Dissection and Higher-Order Genome Organization. Insects, 2021, 12, 884. | 1.0 | 7 |
| 705 | The Role of Human Satellite III (1q12) Copy Number Variation in the Adaptive Response during Aging, Stress, and Pathology: A Pendulum Model. Genes, 2021, 12, 1524. | 1.0 | 10 |
| 706 | Î²-actin dependent chromatin remodeling mediates compartment level changes in 3D genome architecture. Nature Communications, 2021, 12, 5240. | 5.8 | 31 |
| 707 | The Sound of Silence: How Silenced Chromatin Orchestrates the Repair of Double-Strand Breaks. Genes, 2021, 12, 1415. | 1.0 | 6 |
| 709 | Plant 3D Chromatin Organization: Important Insights from Chromosome Conformation Capture Analyses of the Last 10 Years. Plant and Cell Physiology, 2021, 62, 1648-1661. | 1.5 | 9 |
| 710 | Chromosomal Differentiation of Deschampsia (Poaceae) Based on Four Satellite DNA Families. Frontiers in Genetics, 2021, 12, 728664. | 1.1 | 1 |
| 711 | Histone H1 Mutations in Lymphoma: A Link(er) between Chromatin Organization, Developmental Reprogramming, and Cancer. Cancer Research, 2021, 81, 6061-6070. | 0.4 | 11 |
| 712 | Liquid-liquid phase separation as a common organizing principle of intracellular space and biomembranes providing dynamic adaptive responses. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 119102. | 1.9 | 55 |
| 713 | Pioneer factors in development and cancer. IScience, 2021, 24, 103132. | 1.9 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 714 | M33 condenses chromatin through nuclear body formation and methylation of both histone H3 lysine 9 and lysine 27. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 119100. | 1.9 | 0 |
| 715 | Biomolecular condensates at sites of DNA damage: More than just a phase. DNA Repair, 2021, 106, 103179. | 1.3 | 51 |
| 716 | Phase separation in transcription factor dynamics and chromatin organization. Current Opinion in Structural Biology, 2021, 71, 148-155. | 2.6 | 30 |
| 717 | Liquid-like chromatin in the cell: What can we learn from imaging and computational modeling?. Current Opinion in Structural Biology, 2021, 71, 123-135. | 2.6 | 26 |
| 718 | A nervous system-specific subnuclear organelle in <i>Caenorhabditis elegans</i>. Genetics, 2021, 217, 1-17. | 1.2 | 6 |
| 719 | Phasing the intranuclear organization of steroid hormone receptors. Biochemical Journal, 2021, 478, 443-461. | 1.7 | 20 |
| 720 | HP1Î² carries an acidic linker domain and requires H3K9me3 for phase separation. Nucleus, 2021, 12, 44-57. | 0.6 | 14 |
| 721 | Drosophila Satellite Repeats at the Intersection of Chromatin, Gene Regulation and Evolution. Progress in Molecular and Subcellular Biology, 2021, 60, 1-26. | 0.9 | 5 |
| 722 | Polymer modelling unveils the roles of heterochromatin and nucleolar organizing regions in shaping 3D genome organization in<i>Arabidopsis thaliana</i>. Nucleic Acids Research, 2021, 49, 1840-1858. | 6.5 | 34 |
| 723 | Predicting Genome Architecture: Challenges and Solutions. Frontiers in Genetics, 2020, 11, 617202. | 1.1 | 29 |
| 724 | Orc4 spatiotemporally stabilizes centromeric chromatin. Genome Research, 2021, 31, 607-621. | 2.4 | 5 |
| 725 | 1,6-Hexanediol, commonly used to dissolve liquidâ€“liquid phase separated condensates, directly impairs kinase and phosphatase activities. Journal of Biological Chemistry, 2021, 296, 100260. | 1.6 | 84 |
| 726 | Formation of a multiâ€layered 3â€dimensional structure of the heterochromatin compartment during early mammalian development. Development Growth and Differentiation, 2021, 63, 5-17. | 0.6 | 4 |
| 727 | Harnessing the power of fluorescence to characterize biomolecular condensates. Methods in Microbiology, 2021, , 1-47. | 0.4 | 1 |
| 728 | Spatial modeling of biological patterns shows multiscale organization of Arabidopsis thaliana heterochromatin. Scientific Reports, 2021, 11, 323. | 1.6 | 16 |
| 729 | A Polycomb repressive complex is required for RNAi-mediated heterochromatin formation and dynamic distribution of nuclear bodies. Nucleic Acids Research, 2021, 49, 5407-5425. | 6.5 | 27 |
| 730 | Biomolecular condensates at the nexus of cellular stress, protein aggregation disease and ageing. Nature Reviews Molecular Cell Biology, 2021, 22, 196-213. | 16.1 | 535 |
| 731 | Homotypic clustering of L1 and B1/Alu repeats compartmentalizes the 3D genome. Cell Research, 2021, 31, 613-630. | 5.7 | 105 |

| # | Article | IF | Citations |
|---|---|---|---|
| 732 | Cellâ€Inspired Allâ€Aqueous Microfluidics: From Intracellular Liquidâ€“Liquid Phase Separation toward Advanced Biomaterials. Advanced Science, 2020, 7, 1903359. | 5.6 | 111 |
| 733 | Walking Along a Protein Phase Diagram to Determine Coexistence Points by Static Light Scattering. Methods in Molecular Biology, 2020, 2141, 715-730. | 0.4 | 14 |
| 734 | Non-coding RNAs: ever-expanding diversity of types and functions. , 2020, , 5-57. | | 12 |
| 735 | Liquid-like interactions in heterochromatin: Implications for mechanism and regulation. Current Opinion in Cell Biology, 2020, 64, 90-96. | 2.6 | 29 |
| 736 | Mammalian HP1 Isoforms Have Specific Roles in Heterochromatin Structure and Organization. Cell Reports, 2017, 21, 2048-2057. | 2.9 | 63 |
| 737 | Capturing the Onset of PRC2-Mediated Repressive Domain Formation. Molecular Cell, 2018, 70, 1149-1162.e5. | 4.5 | 222 |
| 738 | Genome-in-a-Box: Building a Chromosome from the Bottom Up. ACS Nano, 2021, 15, 111-124. | 7.3 | 16 |
| 739 | Tracking intracellular forces and mechanical property changes in mouse one-cell embryo development. Nature Materials, 2020, 19, 1114-1123. | 13.3 | 16 |
| 740 | Biomolecular condensates as arbiters of biochemical reactions inside the nucleus. Communications Biology, 2020, 3, 773. | 2.0 | 59 |
| 741 | Equilibrium size distribution and phase separation of multivalent, molecular assemblies in dilute solution. Soft Matter, 2020, 16, 5458-5469. | 1.2 | 13 |
| 742 | Three-dimensional genome rewiring during the development of antibody-secreting cells. Biochemical Society Transactions, 2020, 48, 1109-1119. | 1.6 | 1 |
| 743 | Architectural RNA in chromatin organization. Biochemical Society Transactions, 2020, 48, 1967-1978. | 1.6 | 36 |
| 744 | Dissecting the complexity of biomolecular condensates. Biochemical Society Transactions, 2020, 48, 2591-2602. | 1.6 | 9 |
| 745 | Granule regulation by phase separation during <i>Drosophila</i> oogenesis. Emerging Topics in Life Sciences, 2020, 4, 355-364. | 1.1 | 9 |
| 746 | Arginine-rich dipeptide-repeat proteins as phase disruptors in C9-ALS/FTD. Emerging Topics in Life Sciences, 2020, 4, 293-305. | 1.1 | 26 |
| 747 | Therapeuticsâ€”how to treat phase separation-associated diseases. Emerging Topics in Life Sciences, 2020, 4, 331-342. | 1.1 | 65 |
| 748 | Membraneless organelles: phasing out of equilibrium. Emerging Topics in Life Sciences, 2020, 4, 343-354. | 1.1 | 48 |
| 749 | Loss of CBX2 induces genome instability and senescence-associated chromosomal rearrangements. Journal of Cell Biology, 2020, 219, . | 2.3 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 750 | Genome anchoring to nuclear landmarks drives functional compartmentalization of the nuclear space. Briefings in Functional Genomics, 2020, 19, 101-110. | 1.3 | 12 |
| 751 | Discovery and Evolution of New Domains in Yeast Heterochromatin Factor Sir4 and Its Partner Esc1. Genome Biology and Evolution, 2019, 11, 572-585. | 1.1 | 7 |
| 828 | Establishment and evolution of heterochromatin. Annals of the New York Academy of Sciences, 2020, 1476, 59-77. | 1.8 | 39 |
| 829 | Of numbers and movement â€" understanding transcription factor pathogenesis by advanced microscopy. DMM Disease Models and Mechanisms, 2020, 13, . | 1.2 | 8 |
| 830 | The PRR14 heterochromatin tether encodes modular domains that mediate and regulate nuclear lamina targeting. Journal of Cell Science, 2020, 133, . | 1.2 | 17 |
| 831 | Role of phase partitioning in coordinating DNA damage response: focus on the Apurinic Apyrimidinic Endonuclease 1 interactome. Biomolecular Concepts, 2020, 11, 209-220. | 1.0 | 15 |
| 832 | Trnp1 organizes diverse nuclear membraneâ€less compartments in neural stem cells. EMBO Journal, 2020, 39, e103373. | 3.5 | 16 |
| 833 | Ewing sarcoma protein promotes dissociation of poly( <scp>ADP</scp> â€ribose) polymerase 1 from chromatin. EMBO Reports, 2020, 21, e48676. | 2.0 | 16 |
| 834 | Tales from topographic oceans: topologically associated domains and cancer. Endocrine-Related Cancer, 2019, 26, R611-R626. | 1.6 | 6 |
| 835 | 90 YEARS OF PROGESTERONE: Molecular mechanisms of progesterone receptor action on the breast cancer genome. Journal of Molecular Endocrinology, 2020, 65, T65-T79. | 1.1 | 9 |
| 836 | A Non-Amyloid Prion Particle that Activates a Heritable Gene Expression Program. SSRN Electronic Journal, 0, , . | 0.4 | 2 |
| 837 | Liquidâ€"Liquid Phase Separation: Undergraduate Labs on a New Paradigm for Intracellular Organization. The Biophysicist, 2020, 1, . | 0.1 | 2 |
| 838 | A stochastic epigenetic switch controls the dynamics of T-cell lineage commitment. ELife, 2018, 7, . | 2.8 | 70 |
| 839 | Dynamic multifactor hubs interact transiently with sites of active transcription in Drosophila embryos. ELife, 2018, 7, . | 2.8 | 149 |
| 840 | A combination of transcription factors mediates inducible interchromosomal contacts. ELife, 2019, 8, . | 2.8 | 16 |
| 841 | The modular mechanism of chromocenter formation in Drosophila. ELife, 2019, 8, . | 2.8 | 44 |
| 842 | A new class of disordered elements controls DNA replication through initiator self-assembly. ELife, 2019, 8, . | 2.8 | 92 |
| 843 | RNA from a simple-tandem repeat is required for sperm maturation and male fertility in Drosophila melanogaster. ELife, 2019, 8, . | 2.8 | 37 |

| # | Article | IF | Citations |
|---|---|---|---|
| 844 | An H3K9 methylation-dependent protein interaction regulates the non-enzymatic functions of a putative histone demethylase. ELife, 2020, 9, . | 2.8 | 23 |
| 845 | A quantitative inventory of yeast P body proteins reveals principles of composition and specificity. ELife, 2020, 9, . | 2.8 | 90 |
| 846 | Protein phase separation and its role in tumorigenesis. ELife, 2020, 9, . | 2.8 | 63 |
| 847 | Exploring chromosomal structural heterogeneity across multiple cell lines. ELife, 2020, 9, . | 2.8 | 43 |
| 848 | Dimerisation of the PICTS complex via LC8/Cut-up drives co-transcriptional transposon silencing in Drosophila. ELife, 2021, 10, . | 2.8 | 28 |
| 849 | Nde1 is Required for Heterochromatin Compaction and Stability in Neocortical Neurons. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 850 | Epigenetic regulation of nuclear lamina-associated heterochromatin by HAT1 and the acetylation of newly synthesized histones. Nucleic Acids Research, 2021, 49, 12136-12151. | 6.5 | 14 |
| 851 | RPS: a comprehensive database of RNAs involved in liquidâ€“liquid phase separation. Nucleic Acids Research, 2022, 50, D347-D355. | 6.5 | 15 |
| 854 | SARS-CoV-2 nucleocapsid protein forms condensates with viral genomic RNA. PLoS Biology, 2021, 19, e3001425. | 2.6 | 71 |
| 855 | Noncoding RNAs link metabolic reprogramming to immune microenvironment in cancers. Journal of Hematology and Oncology, 2021, 14, 169. | 6.9 | 42 |
| 856 | Polycomb condensates can promote epigenetic marks but are not required for sustained chromatin compaction. Nature Communications, 2021, 12, 5888. | 5.8 | 47 |
| 857 | Encounters in Three Dimensions: How Nuclear Topology Shapes Genome Integrity. Frontiers in Genetics, 2021, 12, 746380. | 1.1 | 4 |
| 858 | Incorporation and Assembly of a Light-Emitting Enzymatic Reaction into Model Protein Condensates. Biochemistry, 2021, 60, 3137-3151. | 1.2 | 6 |
| 860 | A Polycomb domain found in committed cells impairs differentiation when introduced into PRC1 in pluripotent cells. Molecular Cell, 2021, 81, 4677-4691.e8. | 4.5 | 20 |
| 864 | Physical observables to determine the nature of membrane-less cellular sub-compartments. ELife, 2021, 10, . | 2.8 | 14 |
| 865 | Liquid-Liquid Phase Separation: Unraveling the Enigma of Biomolecular Condensates in Microbial Cells. Frontiers in Microbiology, 2021, 12, 751880. | 1.5 | 26 |
| 866 | Phase separating cell fate. Cell Stem Cell, 2021, 28, 1677-1678. | 5.2 | 0 |
| 868 | Current Understanding of Molecular Phase Separation in Chromosomes. International Journal of Molecular Sciences, 2021, 22, 10736. | 1.8 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 869 | Effects of forces on chromatin. APL Bioengineering, 2021, 5, 041503. | 3.3 | 17 |
| 872 | Mapping Local and Global Liquid-liquid Phase Behavior in Living Cells Using Light-activated Multivalent Seeds. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 888 | Specific Contributions of Cohesin-SA1 and Cohesin-SA2 to TADs and Polycomb Domains in Embryonic Stem Cells. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 890 | Evolving Methods in Defining the Role of RNA in RNP Assembly. Biological and Medical Physics Series, 2019, , 39-55. | 0.3 | 0 |
| 897 | Biological Condensates. Materials and Methods, 0, 9, . | 0.0 | 0 |
| 907 | Laser Targeted Oligo Ligation (LTOL) to Identify DNA Sequences in the Vicinity of a Single Subnuclear Structure in a Single Cell. Methods in Molecular Biology, 2020, 2175, 11-21. | 0.4 | 0 |
| 918 | Phase separation drives the self-assembly of mitochondrial nucleoids for transcriptional modulation. Nature Structural and Molecular Biology, 2021, 28, 900-908. | 3.6 | 24 |
| 920 | The solid and liquid states of chromatin. Epigenetics and Chromatin, 2021, 14, 50. | 1.8 | 55 |
| 921 | Inner nuclear protein Matrin-3 coordinates cell differentiation by stabilizing chromatin architecture. Nature Communications, 2021, 12, 6241. | 5.8 | 25 |
| 922 | Multi-scale dynamics of heterochromatin repair. Current Opinion in Genetics and Development, 2021, 71, 206-215. | 1.5 | 14 |
| 925 | Predictive Polymer Models for 3D Chromosome Organization. Methods in Molecular Biology, 2022, 2301, 267-291. | 0.4 | 1 |
| 930 | Modeling and simulation of cell nuclear architecture reorganization process. Journal of Computational Physics, 2022, 449, 110808. | 1.9 | 2 |
| 932 | â€˜RNA modulation of transport properties and stability in phase-separated condensates. Biophysical Journal, 2021, 120, 5169-5186. | 0.2 | 38 |
| 933 | An explainable artificial intelligence approach for decoding the enhancer histone modifications code and identification of novel enhancers in Drosophila. Genome Biology, 2021, 22, 308. | 3.8 | 10 |
| 934 | Inherent genomic properties underlie the epigenomic heterogeneity of human induced pluripotent stem cells. Cell Reports, 2021, 37, 109909. | 2.9 | 14 |
| 935 | Leaving histone unturned for epigenetic inheritance. FEBS Journal, 2021, , . | 2.2 | 5 |
| 936 | rRNA biogenesis regulates mouse 2C-like state by 3D structure reorganization of peri-nucleolar heterochromatin. Nature Communications, 2021, 12, 6365. | 5.8 | 24 |
| 942 | Role of liquid-liquid phase separation in cell physiology and diseases. World Chinese Journal of Digestology, 2020, 28, 884-890. | 0.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 946 | Liquid-liquid phase separation (LLPS) in cellular physiology and tumor biology. American Journal of Cancer Research, 2021, 11, 3766-3776. | 1.4 | 4 |
| 947 | Current methods for studying intracellular liquid-liquid phase separation. Current Topics in Membranes, 2021, 88, 55-73. | 0.5 | 0 |
| 948 | Pluripotency transcription factors at the focus: the phase separation paradigm in stem cells. Biochemical Society Transactions, 2021, 49, 2871-2878. | 1.6 | 4 |
| 949 | Control of Chromatin Organization and Chromosome Behavior during the Cell Cycle through Phase Separation. International Journal of Molecular Sciences, 2021, 22, 12271. | 1.8 | 5 |
| 950 | Chromatin network retards nucleoli coalescence. Nature Communications, 2021, 12, 6824. | 5.8 | 35 |
| 951 | A Shift in Paradigms: Spatial Genomics Approaches to Reveal Single-Cell Principles of Genome Organization. Frontiers in Genetics, 2021, 12, 780822. | 1.1 | 12 |
| 952 | Capsule-like DNA Hydrogels with Patterns Formed by Lateral Phase Separation of DNA Nanostructures. Jacs Au, 2022, 2, 159-168. | 3.6 | 26 |
| 954 | Sir3 heterochromatin protein promotes nonâ€homologous end joining by direct inhibition ofâ€‰Sae2. EMBO Journal, 2021, , e108813. | 3.5 | 5 |
| 955 | Three-dimensional genome organization via triplex-forming RNAs. Nature Structural and Molecular Biology, 2021, 28, 945-954. | 3.6 | 18 |
| 956 | Molecular interactions contributing to FUS SYGQ LC-RGG phase separation and co-partitioning with RNA polymerase II heptads. Nature Structural and Molecular Biology, 2021, 28, 923-935. | 3.6 | 75 |
| 957 | Transcription Regulators and Membraneless Organelles Challenges to Investigate Them. International Journal of Molecular Sciences, 2021, 22, 12758. | 1.8 | 4 |
| 958 | ZMYND8 mediated liquid condensates spatiotemporally decommission the latent super-enhancers during macrophage polarization. Nature Communications, 2021, 12, 6535. | 5.8 | 13 |
| 961 | Lamin C is required to establish genome organization after mitosis. Genome Biology, 2021, 22, 305. | 3.8 | 24 |
| 962 | TAZ exhibits phase separation properties and interacts with Smad7 and Î²-catenin to repress skeletal myogenesis. Journal of Cell Science, 2022, 135, . | 1.2 | 5 |
| 963 | Direct evaluation of cohesin-mediated sister kinetochore associations at meiosis I in fission yeast. Journal of Cell Science, 2022, 135, . | 1.2 | 3 |
| 964 | Building the genome architecture during the maternal to zygotic transition. Current Opinion in Genetics and Development, 2022, 72, 91-100. | 1.5 | 8 |
| 965 | NAD+ bioavailability mediates PARG inhibition-induced replication arrest, intra S-phase checkpoint and apoptosis in glioma stem cells. NAR Cancer, 2021, 3, zcab044. | 1.6 | 8 |
| 966 | Review on Gene regulation: DNA-protein and protein-protein interactions and their regulatory elements. Journal of Chemistry and Nutritional Biochemistry, 2021, 2, 35-45. | 0.3 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 967 | Modulation of cellular processes by histone and non-histone protein acetylation. Nature Reviews Molecular Cell Biology, 2022, 23, 329-349. | 16.1 | 239 |
| 968 | Compartmentalization of telomeres through DNA-scaffolded phase separation. Developmental Cell, 2022, 57, 277-290.e9. | 3.1 | 38 |
| 969 | APC7 mediates ubiquitin signaling in constitutive heterochromatin in the developing mammalian brain. Molecular Cell, 2022, 82, 90-105.e13. | 4.5 | 4 |
| 970 | SETDB1-like MET-2 promotes transcriptional silencing and development independently of its H3K9me-associated catalytic activity. Nature Structural and Molecular Biology, 2022, 29, 85-96. | 3.6 | 11 |
| 971 | Rich Phase Separation Behavior of Biomolecules. Molecules and Cells, 2022, 45, 6-15. | 1.0 | 12 |
| 972 | Shining Light on the Dark Side of the Genome. Cells, 2022, 11, 330. | 1.8 | 6 |
| 973 | Integrative approaches in genome structure analysis. Structure, 2022, 30, 24-36. | 1.6 | 8 |
| 974 | The regional sequestration of heterochromatin structural proteins is critical to form and maintain silent chromatin. Epigenetics and Chromatin, 2022, 15, 5. | 1.8 | 11 |
| 976 | 53BP1 regulates heterochromatin through liquid phase separation. Nature Communications, 2022, 13, 360. | 5.8 | 46 |
| 977 | A natural product targets BRD4 to inhibit phase separation and gene transcription. IScience, 2022, 25, 103719. | 1.9 | 5 |
| 978 | Uncovering the Quantitative Relationships Among Chromosome Fluctuations, Epigenetics, and Gene Expressions of Transdifferentiation on Waddington Landscape. Advanced Science, 2022, , 2103617. | 5.6 | 1 |
| 979 | Emerging mechanisms and dynamics of three-dimensional genome organisation at zygotic genome activation. Current Opinion in Cell Biology, 2022, 74, 37-46. | 2.6 | 10 |
| 980 | RNA length has a non-trivial effect in the stability of biomolecular condensates formed by RNA-binding proteins. PLoS Computational Biology, 2022, 18, e1009810. | 1.5 | 25 |
| 981 | Histone H3 and H4 tails play an important role in nucleosome phase separation. Biophysical Chemistry, 2022, 283, 106767. | 1.5 | 3 |
| 982 | On the role of phase separation in the biogenesis of membraneless compartments. EMBO Journal, 2022, 41, e109952. | 3.5 | 100 |
| 983 | OUP accepted manuscript. Nucleic Acids Research, 2022, , . | 6.5 | 6 |
| 984 | Looking at the Pretty â€œPhaseâ€• of Membraneless Organelles: A View From Drosophila Glia. Frontiers in Cell and Developmental Biology, 2022, 10, 801953. | 1.8 | 3 |
| 985 | Extracellular Adhesive Cues Physically Define Nucleolar Structure and Function. Advanced Science, 2022, 9, e2105545. | 5.6 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 986 | Principles and functions of pericentromeric satellite DNA clustering into chromocenters. Seminars in Cell and Developmental Biology, 2022, 128, 26-39. | 2.3 | 22 |
| 987 | A Mediator-cohesin axis controls heterochromatin domain formation. Nature Communications, 2022, 13, 754. | 5.8 | 17 |
| 989 | Distinct structural bases for sequence-specific DNA binding by mammalian BEN domain proteins. Genes and Development, 2022, 36, 225-240. | 2.7 | 13 |
| 990 | Molecular architecture of enhancerâ€“promoter interaction. Current Opinion in Cell Biology, 2022, 74, 62-70. | 2.6 | 17 |
| 991 | Sequence-dependent surface condensation of a pioneer transcription factor on DNA. Nature Physics, 2022, 18, 271-276. | 6.5 | 73 |
| 992 | MeCP2-induced heterochromatin organization is driven by oligomerization-based liquidâ€“liquid phase separation and restricted by DNA methylation. Nucleus, 2022, 13, 1-34. | 0.6 | 14 |
| 993 | Spatial Features and Functional Implications of Plant 3D Genome Organization. Annual Review of Plant Biology, 2022, 73, 173-200. | 8.6 | 13 |
| 994 | Liquidâ€“liquid phase separation drives cellular function and dysfunction in cancer. Nature Reviews Cancer, 2022, 22, 239-252. | 12.8 | 115 |
| 995 | Molecular determinants of phase separation for Drosophila DNA replication licensing factors. ELife, 2021, 10, . | 2.8 | 11 |
| 996 | Phase-separation in chromatin organization. Journal of Biosciences, 2020, 45, . | 0.5 | 12 |
| 997 | Regulation of epigenetic state by non-histone chromatin proteins and transcription factors: Implications in disease. Journal of Biosciences, 2020, 45, . | 0.5 | 2 |
| 998 | The CBX family of proteins in transcriptional repression and memory. Journal of Biosciences, 2020, 45, . | 0.5 | 8 |
| 999 | Recent advances in the spatial organization of the mammalian genome. Journal of Biosciences, 2020, 45, . | 0.5 | 4 |
| 1000 | Connecting the Dots: PHF13 and Cohesin Promote Polymer-Polymer Phase Separation of Chromatin Into Chromosomes. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1001 | ERK signaling dissolves ERF repression condensates in living embryos. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 7 |
| 1002 | HP1 maintains protein stability of H3K9 methyltransferases and demethylases. EMBO Reports, 2022, 23, e53581. | 2.0 | 21 |
| 1003 | Activation-induced chromatin reorganization in neurons depends on HDAC1 activity. Cell Reports, 2022, 38, 110352. | 2.9 | 7 |
| 1005 | Liquid demixing in elastic networks: Cavitation, permeation, or size selection?. Europhysics Letters, 2022, 137, 67001. | 0.7 | 27 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1008 | Conformational Dynamics of Intrinsically Disordered Proteins Regulate Biomolecular Condensate Chemistry. Chemical Reviews, 2022, 122, 6719-6748. | 23.0 | 55 |
| 1010 | An Expanding Toolkit for Heterochromatin Repair Studies. Genes, 2022, 13, 529. | 1.0 | 3 |
| 1011 | Uncovering Regulators of Heterochromatin Mediated Silencing Using a Zebrafish Transgenic Reporter. Frontiers in Cell and Developmental Biology, 2022, 10, 832461. | 1.8 | 0 |
| 1015 | Xist spatially amplifies SHARP/SPEN recruitment to balance chromosome-wide silencing and specificity to the X chromosome. Nature Structural and Molecular Biology, 2022, 29, 239-249. | 3.6 | 46 |
| 1016 | Nuclear envelope assembly and dynamics during development. Seminars in Cell and Developmental Biology, 2023, 133, 96-106. | 2.3 | 5 |
| 1017 | Co-condensation of proteins with single- and double-stranded DNA. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2107871119. | 3.3 | 28 |
| 1018 | On the stability and layered organization of protein-DNA condensates. Biophysical Journal, 2022, 121, 1727-1737. | 0.2 | 20 |
| 1020 | Tuning Formation of Proteinâ€“DNA Coacervates by Sequence and Environment. Journal of Physical Chemistry B, 2022, 126, 2407-2419. | 1.2 | 10 |
| 1022 | Kinetic interplay between droplet maturation and coalescence modulates shape of aged protein condensates. Scientific Reports, 2022, 12, 4390. | 1.6 | 20 |
| 1023 | Loops, topologically associating domains, compartments, and territories are elastic and robust to dramatic nuclear volume swelling. Scientific Reports, 2022, 12, 4721. | 1.6 | 14 |
| 1025 | Function moves biomolecular condensates in phase space. BioEssays, 2022, 44, e2200001. | 1.2 | 6 |
| 1026 | Histone post-translational modifications â€” cause and consequence of genome function. Nature Reviews Genetics, 2022, 23, 563-580. | 7.7 | 253 |
| 1027 | Nucleic Acids Modulate Liquidity and Dynamics of Artificial Membraneless Organelles. ACS Macro Letters, 2022, 11, 562-567. | 2.3 | 20 |
| 1028 | Multiscale modelling of chromatin organisation: Resolving nucleosomes at near-atomistic resolution inside genes. Current Opinion in Cell Biology, 2022, 75, 102067. | 2.6 | 9 |
| 1029 | Quantifying cell-cycle-dependent chromatin dynamics during interphase by live 3D tracking. IScience, 2022, 25, 104197. | 1.9 | 2 |
| 1030 | Nucleic acid actions on abnormal protein aggregation, phase transitions and phase separation. Current Opinion in Structural Biology, 2022, 73, 102346. | 2.6 | 12 |
| 1031 | Nanofiller dispersing, drawn orientation, and mechanical properties of polymerâ€based composites via organoâ€modification of singleâ€walled carbon nanotubes obtained by twoâ€types of manufacturing processes. Polymer Composites, 2022, 43, 3457-3470. | 2.3 | 4 |
| 1032 | Spatial organization of chromosomes leads to heterogeneous chromatin motion and drives the liquid- or gel-like dynamical behavior of chromatin. Genome Research, 2022, 32, 28-43. | 2.4 | 27 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1034 | Complex Genetic Interactions between Piwi and HP1a in the Repression of Transposable Elements and Tissue-Specific Genes in the Ovarian Germline. International Journal of Molecular Sciences, 2021, 22, 13430. | 1.8 | 3 |
| 1035 | Meiotic sex chromosome inactivation and the XY body: a phase separation hypothesis. Cellular and Molecular Life Sciences, 2022, 79, 18. | 2.4 | 21 |
| 1037 | Polyphosphate drives bacterial heterochromatin formation. Science Advances, 2021, 7, eabk0233. | 4.7 | 27 |
| 1038 | Modulation of Phase Separation by RNA: A Glimpse on N6-Methyladenosine Modification. Frontiers in Cell and Developmental Biology, 2021, 9, 786454. | 1.8 | 16 |
| 1039 | Dynamics and Pathways of Chromosome Structural Organizations during Cell Transdifferentiation. Jacs Au, 2022, 2, 116-127. | 3.6 | 3 |
| 1042 | Histone H3.3 phosphorylation promotes heterochromatin formation by inhibiting H3K9/K36 histone demethylase. Nucleic Acids Research, 2022, 50, 4500-4514. | 6.5 | 12 |
| 1043 | Heterochromatic repeat clustering imposes a physical barrier on homologous recombination to prevent chromosomal translocations. Molecular Cell, 2022, 82, 2132-2147.e6. | 4.5 | 8 |
| 1044 | Liquidâ€"liquid phase separation as an organizing principle of intracellular space: overview of the evolution of the cell compartmentalization concept. Cellular and Molecular Life Sciences, 2022, 79, 251. | 2.4 | 42 |
| 1045 | Extensive Chromatin Structure-Function Associations Revealed by Accurate 3D Compartmentalization Characterization. Frontiers in Cell and Developmental Biology, 2022, 10, 845118. | 1.8 | 5 |
| 1046 | Kinetic Analysis of the Effect of <i>N</i>-Terminal Acetylation on Thymine DNA Glycosylase. Biochemistry, 2022, 61, 895-908. | 1.2 | 0 |
| 1047 | Membrane surfaces regulate assembly of ribonucleoprotein condensates. Nature Cell Biology, 2022, 24, 461-470. | 4.6 | 68 |
| 1048 | Arabidopsis HOPS subunit VPS41 carries out plant-specific roles in vacuolar transport and vegetative growth. Plant Physiology, 2022, 189, 1416-1434. | 2.3 | 14 |
| 1054 | Can aggressive cancers be identified by the â€œaggressivenessâ€• of their chromatin?. BioEssays, 2022, , 2100212. | 1.2 | 2 |
| 1055 | Multivalent Peptide Ligands To Probe the Chromocenter Microenvironment in Living Cells. ACS Chemical Biology, 2023, 18, 1066-1075. | 1.6 | 10 |
| 1056 | General Reading and Bibliography. , 2022, , 192-208. | | 0 |
| 1059 | NANOG prion-like assembly mediates DNA bridging to facilitate chromatin reorganization and activation of pluripotency. Nature Cell Biology, 2022, 24, 737-747. | 4.6 | 19 |
| 1060 | Post-translational modifications in liquid-liquid phase separation: a comprehensive review. Molecular Biomedicine, 2022, 3, 13. | 1.7 | 42 |
| 1061 | The Physics of DNA Folding: Polymer Models and Phase-Separation. Polymers, 2022, 14, 1918. | 2.0 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1062 | Long-Distance Repression by Human Silencers: Chromatin Interactions and Phase Separation in Silencers. Cells, 2022, 11, 1560. | 1.8 | 8 |
| 1063 | Phase Separation: â€œThe Master Keyâ€•to Deciphering the Physiological and Pathological Functions of Cells. Advanced Biology, 2022, , 2200006. | 1.4 | 6 |
| 1064 | Hsp70 exhibits a liquid-liquid phase separation ability and chaperones condensed FUS against amyloid aggregation. IScience, 2022, 25, 104356. | 1.9 | 14 |
| 1065 | Functions of HP1 proteins in transcriptional regulation. Epigenetics and Chromatin, 2022, 15, 14. | 1.8 | 15 |
| 1066 | Nde1 is required for heterochromatin compaction and stability in neocortical neurons. IScience, 2022, 25, 104354. | 1.9 | 3 |
| 1067 | The mechanobiology of nuclear phase separation. APL Bioengineering, 2022, 6, 021503. | 3.3 | 15 |
| 1069 | Generation of dynamic three-dimensional genome structure through phase separation of chromatin. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 30 |
| 1071 | Phase Separation in the Nucleus and at the Nuclear Periphery during Post-Mitotic Nuclear Envelope Reformation. Cells, 2022, 11, 1749. | 1.8 | 2 |
| 1074 | Differences in interaction lead to the formation of different types of insulin amyloid. Scientific Reports, 2022, 12, . | 1.6 | 4 |
| 1075 | Simulating the chromatin-mediated phase separation of model proteins with multiple domains. Biophysical Journal, 2022, 121, 2600-2612. | 0.2 | 13 |
| 1078 | Polymer-Assisted Condensation: A Mechanism for Hetero-Chromatin Formation and Epigenetic Memory. Macromolecules, 2022, 55, 4841-4851. | 2.2 | 9 |
| 1079 | Production of nascent ribosome precursors within the nucleolar microenvironment of <i>Saccharomyces cerevisiae</i>. Genetics, 2022, 221, . | 1.2 | 4 |
| 1080 | CBX4 contributes to HIVâ€1 latency by forming phaseâ€separated nuclear bodies and SUMOylating EZH2. EMBO Reports, 2022, 23, . | 2.0 | 12 |
| 1082 | Position Effect Variegation: Role of the Local Chromatin Context in Gene Expression Regulation. Molecular Biology, 2022, 56, 307-338. | 0.4 | 1 |
| 1083 | Nonclassical Crystallization Pathways in Biomolecular Self-Assembly. ACS Symposium Series, 0, , 89-103. | 0.5 | 0 |
| 1084 | Phase separation in controlling meiotic chromosome dynamics. Current Topics in Developmental Biology, 2023, , 69-90. | 1.0 | 3 |
| 1085 | Super-Enhancers, Phase-Separated Condensates, and 3D Genome Organization in Cancer. Cancers, 2022, 14, 2866. | 1.7 | 16 |
| 1086 | Satellite repeat transcripts modulate heterochromatin condensates and safeguard chromosome stability in mouse embryonic stem cells. Nature Communications, 2022, 13, . | 5.8 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1087 | Epigenetics, cell cycle and stem cell metabolism. Formation of insulin-producing cells. MÃ¬Å¾narodnij EndokrinologÃ¬Änij Å½urnal, 2022, 18, 169-179. | 0.1 | 0 |
| 1089 | Aging can transform single-component protein condensates into multiphase architectures. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 44 |
| 1090 | Live analysis of position-effect variegation in <i>Drosophila</i> reveals different modes of action for HP1a and Su(var)3-9. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 1 |
| 1091 | Shelterin Components Modulate Nucleic Acids Condensation and Phase Separation in the Context of Telomeric DNA. Journal of Molecular Biology, 2022, 434, 167685. | 2.0 | 6 |
| 1092 | Interplay between regulatory elements and chromatin topology in cellular lineage determination. Trends in Genetics, 2022, 38, 1048-1061. | 2.9 | 9 |
| 1094 | Premature transcription termination at the expanded GAA repeats and aberrant alternative polyadenylation contributes to the<i>Frataxin</i>transcriptional deficit in Friedreichâ€™s ataxia. Human Molecular Genetics, 2022, 31, 3539-3557. | 1.4 | 6 |
| 1095 | A simulation model of heterochromatin formation at submolecular detail. IScience, 2022, 25, 104590. | 1.9 | 3 |
| 1096 | Physiological functions and roles in cancer of the proliferation marker Ki-67. Journal of Cell Science, 2022, 135, . | 1.2 | 18 |
| 1097 | Rheology and Viscoelasticity of Proteins and Nucleic Acids Condensates. Jacs Au, 2022, 2, 1506-1521. | 3.6 | 19 |
| 1098 | HP1-Driven Micro-Phase Separation of Heterochromatin-Like Domains/Complexes. Epigenetics Insights, 2022, 15, 251686572211097. | 0.6 | 2 |
| 1099 | Multi-scale phase separation by explosive percolation with single-chromatin loop resolution. Computational and Structural Biotechnology Journal, 2022, 20, 3591-3603. | 1.9 | 3 |
| 1100 | Chromatin Hubs: A biological and computational outlook. Computational and Structural Biotechnology Journal, 2022, 20, 3796-3813. | 1.9 | 6 |
| 1101 | Structural variations in cancer and the 3D genome. Nature Reviews Cancer, 2022, 22, 533-546. | 12.8 | 27 |
| 1103 | HP1 oligomerization compensates for low-affinity H3K9me recognition and provides a tunable mechanism for heterochromatin-specific localization. Science Advances, 2022, 8, . | 4.7 | 9 |
| 1104 | Senescence: An Identity Crisis Originating from Deep Within the Nucleus. Annual Review of Cell and Developmental Biology, 2022, 38, 219-239. | 4.0 | 8 |
| 1105 | DNA damage reduces heterogeneity and coherence of chromatin motions. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 6 |
| 1106 | JmjC Family of Histone Demethylases Form Nuclear Condensates. International Journal of Molecular Sciences, 2022, 23, 7664. | 1.8 | 5 |
| 1107 | Liquidâ€“liquid phase separation in tumor biology. Signal Transduction and Targeted Therapy, 2022, 7, . | 7.1 | 52 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1108 | Principles Governing the Phase Separation of Multidomain Proteins. Biochemistry, 2022, 61, 2443-2455. | 1.2 | 40 |
| 1110 | Can the Concentration of a Transcription Factor Affect Gene Expression?. , 0, 2, . | | 6 |
| 1111 | Genetic variation associated with condensate dysregulation in disease. Developmental Cell, 2022, 57, 1776-1788.e8. | 3.1 | 41 |
| 1112 | Linking transcriptional silencing with chromatin remodeling, folding, and positioning in the nucleus. Current Opinion in Plant Biology, 2022, 69, 102261. | 3.5 | 2 |
| 1113 | The Growth Rate of DNA Condensate Droplets Increases with the Size of Participating Subunits. ACS Nano, 2022, 16, 11842-11851. | 7.3 | 12 |
| 1114 | Phase Separation-Mediated Chromatin Organization and Dynamics: From Imaging-Based Quantitative Characterizations to Functional Implications. International Journal of Molecular Sciences, 2022, 23, 8039. | 1.8 | 7 |
| 1115 | 3D genome, on repeat: Higher-order folding principles of the heterochromatinized repetitive genome. Cell, 2022, 185, 2690-2707. | 13.5 | 18 |
| 1116 | Phase Separation and Correlated Motions in Motorized Genome. Journal of Physical Chemistry B, 2022, 126, 5619-5628. | 1.2 | 12 |
| 1119 | <i>Drosophila</i>insulator proteins exhibit in vivo liquidâ€"liquid phase separation properties. Life Science Alliance, 2022, 5, e202201536. | 1.3 | 7 |
| 1120 | Modulating biomolecular condensates: a novel approach to drug discovery. Nature Reviews Drug Discovery, 2022, 21, 841-862. | 21.5 | 88 |
| 1121 | Mechanisms governing the accessibility of DNA damage proteins to constitutive heterochromatin. Frontiers in Genetics, 0, 13, . | 1.1 | 2 |
| 1122 | Characterizing the variation in chromosome structure ensembles in the context of the nuclear microenvironment. PLoS Computational Biology, 2022, 18, e1010392. | 1.5 | 3 |
| 1124 | Painters in chromatin: a unified quantitative framework to systematically characterize epigenome regulation and memory. Nucleic Acids Research, 2022, 50, 9083-9104. | 6.5 | 12 |
| 1125 | The 3D genome landscape: Diverse chromosomal interactions and their functional implications. Frontiers in Cell and Developmental Biology, 0, 10, . | 1.8 | 1 |
| 1126 | Tau liquidâ€"liquid phase separation: At the crossroads of tau physiology and tauopathy. Journal of Cellular Physiology, 0, , . | 2.0 | 4 |
| 1127 | Role of pyroptosis in inflammation and cancer. , 2022, 19, 971-992. | | 155 |
| 1128 | Long-distance association of topological boundaries through nuclear condensates. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 10 |
| 1129 | Phase separation in epigenetics and cancer stem cells. Frontiers in Oncology, 0, 12, . | 1.3 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1130 | Quantifying Chromosome Structural Reorganizations during Differentiation, Reprogramming, and Transdifferentiation. Physical Review Letters, 2022, 129, . | 2.9 | 8 |
| 1131 | Salt-Induced Transitions in the Conformational Ensembles of Intrinsically Disordered Proteins. Journal of Physical Chemistry B, 2022, 126, 5959-5971. | 1.2 | 17 |
| 1132 | The state of water molecules induces changes in the topologies and interactions of G-quadruplex DNA aptamers in hydrated ionic liquid. Journal of Molecular Liquids, 2022, 366, 120175. | 2.3 | 5 |
| 1134 | CTCF DNA-binding domain undergoes dynamic and selective proteinâ€“protein interactions. IScience, 2022, 25, 105011. | 1.9 | 6 |
| 1135 | Molecular organization of the early stages of nucleosome phase separation visualized by cryo-electron tomography. Molecular Cell, 2022, 82, 3000-3014.e9. | 4.5 | 16 |
| 1136 | Aberrant chromatin reorganization in cells from diseased fibrous connective tissue in response to altered chemomechanical cues. Nature Biomedical Engineering, 2023, 7, 177-191. | 11.6 | 23 |
| 1137 | Phase-separation antagonists potently inhibit transcription and broadly increase nucleosome density. Journal of Biological Chemistry, 2022, 298, 102365. | 1.6 | 5 |
| 1138 | Aberrant liquid-liquid phase separation and amyloid aggregation of proteins related to neurodegenerative diseases. International Journal of Biological Macromolecules, 2022, 220, 703-720. | 3.6 | 15 |
| 1139 | <i>Su(var)2-10</i>- and <i>Su(var)205</i>-dependent upregulation of the heterochromatic gene <i>neverland</i> is required for developmental transition in <i>Drosophila</i>. Genetics, 2022, 222, . | 1.2 | 2 |
| 1140 | MeCP2 heterochromatin organization is modulated by arginine methylation and serine phosphorylation. Frontiers in Cell and Developmental Biology, 0, 10, . | 1.8 | 2 |
| 1141 | Affinity and Valence Impact the Extent and Symmetry of Phase Separation of Multivalent Proteins. Physical Review Letters, 2022, 129, . | 2.9 | 8 |
| 1142 | Drosophila Epigenetics. , 2023, , 215-247. | | 1 |
| 1143 | CEBPA Phase Separation Links Transcriptional Activity and 3D Chromatin Hubs. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 1144 | Phase separation in Cancer: From the Impacts and Mechanisms to Treatment potentials. International Journal of Biological Sciences, 2022, 18, 5103-5122. | 2.6 | 18 |
| 1145 | Microfluidics for multiscale studies of biomolecular condensates. Lab on A Chip, 2022, 23, 9-24. | 3.1 | 4 |
| 1146 | Nonequilibrium Physics of Molecules and Cells. Graduate Texts in Physics, 2022, , 1-59. | 0.1 | 0 |
| 1147 | Cytoplasmic forces functionally reorganize nuclear condensates in oocytes. Nature Communications, 2022, 13, . | 5.8 | 17 |
| 1148 | Decoding histone ubiquitylation. Frontiers in Cell and Developmental Biology, 0, 10, . | 1.8 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1149 | Capillary forces generated by biomolecular condensates. Nature, 2022, 609, 255-264. | 13.7 | 92 |
| 1150 | Human centromere repositioning activates transcription and opens chromatin fibre structure. Nature Communications, 2022, 13, . | 5.8 | 11 |
| 1151 | Three-dimensional genome organization in immune cell fate and function. Nature Reviews Immunology, 2023, 23, 206-221. | 10.6 | 20 |
| 1152 | Biomaterial design inspired by membraneless organelles. Matter, 2022, 5, 2787-2812. | 5.0 | 19 |
| 1155 | Emerging Implications of Phase Separation in Cancer. Advanced Science, 2022, 9, . | 5.6 | 9 |
| 1157 | Biological colloids: Unique properties of membraneless organelles in the cell. Advances in Colloid and Interface Science, 2022, 310, 102777. | 7.0 | 6 |
| 1160 | Mesoscale structureâ€"function relationships in mitochondrial transcriptional condensates. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 22 |
| 1161 | Nuclear position modulates long-range chromatin interactions. PLoS Genetics, 2022, 18, e1010451. | 1.5 | 3 |
| 1162 | Characterizing Properties of Biomolecular Condensates Below the Diffraction Limit In Vivo. Methods in Molecular Biology, 2023, , 425-445. | 0.4 | 2 |
| 1163 | Unusual Mathematical Approaches Untangle Nervous Dynamics. Biomedicines, 2022, 10, 2581. | 1.4 | 1 |
| 1164 | Single-Molecule Imaging of the Phase Separation-Modulated DNA Compaction to Study Transcriptional Repression. Methods in Molecular Biology, 2023, , 215-223. | 0.4 | 0 |
| 1165 | Assessing the Phase Separation Propensity of Proteins in Living Cells Through Optodroplet Formation. Methods in Molecular Biology, 2023, , 395-411. | 0.4 | 3 |
| 1166 | An Optogenetic Toolkit for the Control of Phase Separation in Living Cells. Methods in Molecular Biology, 2023, , 383-394. | 0.4 | 3 |
| 1167 | Repair Foci as Liquid Phase Separation: Evidence and Limitations. Genes, 2022, 13, 1846. | 1.0 | 9 |
| 1168 | TGM2-mediated histone transglutamination is dictated by steric accessibility. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, . | 3.3 | 9 |
| 1169 | Cryo-Electron Tomography of Reconstituted Biomolecular Condensates. Methods in Molecular Biology, 2023, , 297-324. | 0.4 | 4 |
| 1170 | An Introduction to the Stickers-and-Spacers Framework as Applied to Biomolecular Condensates. Methods in Molecular Biology, 2023, , 95-116. | 0.4 | 14 |
| 1172 | Multiscale Modeling of Protein-RNA Condensation in and Out of Equilibrium. Methods in Molecular Biology, 2023, , 117-133. | 0.4 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1173 | Computer simulations of chromatin phase separation. Biophysical Journal, 2022, , . | 0.2 | 0 |
| 1175 | 2-Cell-like Cells: An Avenue for Improving SCNT Efficiency. Biomolecules, 2022, 12, 1611. | 1.8 | 1 |
| 1176 | Histone H2B.8 compacts flowering plant sperm through chromatin phase separation. Nature, 2022, 611, 614-622. | 13.7 | 28 |
| 1177 | CENP-A: A Histone H3 Variant with Key Roles in Centromere Architecture in Healthy and Diseased States. Results and Problems in Cell Differentiation, 2022, , 221-261. | 0.2 | 1 |
| 1178 | Nuclear Architecture in the Nervous System. Results and Problems in Cell Differentiation, 2022, , 419-442. | 0.2 | 0 |
| 1179 | Biochemical and structural biology aspects of liquidâ€“liquid phase separation: protein side of liquidâ€“liquid phase separation, membrane-less organelles, and biomolecular condensates. , 2023, , 101-132. | | 0 |
| 1180 | Guidelines for experimental characterization of liquidâ€“liquid phase separation inÂvitro. , 2023, , 233-249. | | 0 |
| 1181 | Phase separation in chromatin-based intranuclear processes. , 2023, , 461-483. | | 0 |
| 1182 | Spatial and Temporal Organization of Chromatin at Small and Large Scales. Annual Review of Condensed Matter Physics, 2023, 14, 193-210. | 5.2 | 2 |
| 1183 | Different states and the associated fates of biomolecular condensates. Essays in Biochemistry, 2022, 66, 849-862. | 2.1 | 2 |
| 1184 | Enhanced DNA repair through droplet formation and p53 oscillations. Cell, 2022, 185, 4394-4408.e10. | 13.5 | 9 |
| 1187 | Mesoscience in cell biology and cancer research. , 2022, 1, 271-284. | | 0 |
| 1188 | The Chromatin Regulator HMGA1a Undergoes Phase Separation in the Nucleus**. ChemBioChem, 2023, 24, . | 1.3 | 5 |
| 1189 | Phase separation drives the formation of biomolecular condensates in the immune system. Frontiers in Immunology, 0, 13, . | 2.2 | 3 |
| 1190 | Dynamic structures of intrinsically disordered proteins related to the general transcription factor TFIIH, nucleosomes, and histone chaperones. Biophysical Reviews, 2022, 14, 1449-1472. | 1.5 | 4 |
| 1194 | Chromatin accessibility: methods, mechanisms, and biological insights. Nucleus, 2022, 13, 238-278. | 0.6 | 16 |
| 1195 | dSCOPE: a software to detect sequences critical for liquidâ€“liquid phase separation. Briefings in Bioinformatics, 2023, 24, . | 3.2 | 8 |
| 1196 | Euchromatin Activity Enhances Segregation and Compaction of Heterochromatin in the Cell Nucleus. Physical Review X, 2022, 12, . | 2.8 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1197 | Direct imaging of intracellular RNA, DNA, and liquidâ€"liquid phase separated membraneless organelles with Raman microspectroscopy. Communications Biology, 2022, 5, . | 2.0 | 3 |
| 1198 | Engineering inducible biomolecular assemblies for genome imaging and manipulation in living cells. Nature Communications, 2022, 13, . | 5.8 | 6 |
| 1199 | Molecular interactions underlying the phase separation of HP1Î±: role of phosphorylation, ligandÂand nucleic acid binding. Nucleic Acids Research, 2022, 50, 12702-12722. | 6.5 | 17 |
| 1200 | Metabolic modulation of transcription: The role of one-carbon metabolism. Cell Chemical Biology, 2022, 29, 1664-1679. | 2.5 | 7 |
| 1201 | Recruitment of <scp>TRIM33</scp> to cellâ€context specific <scp>PML</scp> nuclear bodies regulates nodal signaling in <scp>mESCs</scp>. EMBO Journal, 2023, 42, . | 3.5 | 5 |
| 1202 | Molecular determinants for the layering and coarsening of biological condensates. Aggregate, 2022, 3, . | 5.2 | 7 |
| 1203 | Protein Phase Separation: New Insights into Carcinogenesis. Cancers, 2022, 14, 5971. | 1.7 | 0 |
| 1205 | How enzymatic activity is involved in chromatin organization. ELife, 0, 11, . | 2.8 | 4 |
| 1206 | Structural insights into p300 regulation and acetylation-dependent genome organisation. Nature Communications, 2022, 13, . | 5.8 | 21 |
| 1207 | HP1 proteins regulate nucleolar structure and function by secluding pericentromeric constitutive heterochromatin. Nucleic Acids Research, 2023, 51, 117-143. | 6.5 | 4 |
| 1208 | Controlling the Formation of Polyelectrolyte Complex Nanoparticles Using Programmable pH Reactions. Macromolecules, 2023, 56, 226-233. | 2.2 | 4 |
| 1209 | Targets of histone H3 lysine 9 methyltransferases. Frontiers in Cell and Developmental Biology, 0, 10, . | 1.8 | 3 |
| 1211 | Diverse silent chromatin states modulate genome compartmentalization and loop extrusion barriers. Nature Structural and Molecular Biology, 2023, 30, 38-51. | 3.6 | 30 |
| 1212 | The dynamics of three-dimensional chromatin organization and phase separation in cell fate transitions and diseases. Cell Regeneration, 2022, 11, . | 1.1 | 4 |
| 1215 | Functional partitioning of transcriptional regulators by patterned charge blocks. Cell, 2023, 186, 327-345.e28. | 13.5 | 77 |
| 1216 | Long non-coding RNAs: definitions, functions, challenges and recommendations. Nature Reviews Molecular Cell Biology, 2023, 24, 430-447. | 16.1 | 313 |
| 1218 | Progressive transformation of the HIV-1 reservoir cell profile over two decades of antiviral therapy. Cell Host and Microbe, 2023, 31, 83-96.e5. | 5.1 | 34 |
| 1219 | Liquid-liquid Phase Separation in Viral Function. Journal of Molecular Biology, 2023, 435, 167955. | 2.0 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1220 | A call to order: Examining structured domains in biomolecular condensates. Journal of Magnetic Resonance, 2023, 346, 107318. | 1.2 | 3 |
| 1222 | Genome modeling: From chromatin fibers to genes. Current Opinion in Structural Biology, 2023, 78, 102506. | 2.6 | 6 |
| 1223 | HOXA9 forms a repressive complex with nuclear matrixâ€"associated protein SAFB to maintain acute myeloid leukemia. Blood, 2023, 141, 1737-1754. | 0.6 | 5 |
| 1225 | Epigenetic regulation of cis-regulatory elements and transcription factors during development. , 2023, , 71-113. | | 1 |
| 1226 | Condensate biology of synaptic vesicle clusters. Trends in Neurosciences, 2023, 46, 293-306. | 4.2 | 22 |
| 1227 | Mapping nucleolus-associated chromatin interactions using nucleolus Hi-C reveals pattern of heterochromatin interactions. Nature Communications, 2023, 14, . | 5.8 | 10 |
| 1228 | Heterochromatin organization and phase separation. Nucleus, 2023, 14, . | 0.6 | 9 |
| 1229 | Thermodynamic origins of two-component multiphase condensates of proteins. Chemical Science, 2023, 14, 1820-1836. | 3.7 | 12 |
| 1231 | Consistencies and contradictions in different polymer models of chromatin architecture. Computational and Structural Biotechnology Journal, 2023, 21, 1084-1091. | 1.9 | 3 |
| 1232 | A hybrid positive unlabeled learning framework for uncovering scaffolds across human proteome by measuring the propensity to drive phase separation. Briefings in Bioinformatics, 0, , . | 3.2 | 0 |
| 1233 | Nuclear condensates in YAP1-driven ependymoma. Nature Cell Biology, 0, , . | 4.6 | 0 |
| 1234 | DNA curtains for studying phase separation mechanisms of DNA-organizing proteins. Methods in Cell Biology, 2024, , 95-108. | 0.5 | 0 |
| 1235 | Nuclear architecture and the structural basis of mitotic memory. Chromosome Research, 2023, 31, . | 1.0 | 2 |
| 1236 | Toward the Development of Epigenome Editing-Based Therapeutics: Potentials and Challenges. International Journal of Molecular Sciences, 2023, 24, 4778. | 1.8 | 10 |
| 1237 | Interaction modules that impart specificity to disordered protein. Trends in Biochemical Sciences, 2023, 48, 477-490. | 3.7 | 22 |
| 1238 | Sequenceâ€dependent clustering properties of nucleotides fragments in an ionic solution. Journal of the Chinese Chemical Society, 2023, 70, 297-316. | 0.8 | 0 |
| 1239 | Size distributions of intracellular condensates reflect competition between coalescence and nucleation. Nature Physics, 2023, 19, 586-596. | 6.5 | 22 |
| 1240 | Intracellular Organization of Proteins and Nucleic Acids via Biomolecular Condensates in Human Health and Diseases. Biochem, 2023, 3, 31-46. | 0.5 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1241 | Liquidâ€"Liquid Phase Separation? Ask the Water!. Journal of Physical Chemistry Letters, 2023, 14, 1556-1563. | 2.1 | 23 |
| 1242 | Protein Diffusion Along Protein and DNA Lattices: Role of Electrostatics and Disordered Regions. Annual Review of Biophysics, 2023, 52, 463-486. | 4.5 | 5 |
| 1245 | Unveiling the Machinery behind Chromosome Folding by Polymer Physics Modeling. International Journal of Molecular Sciences, 2023, 24, 3660. | 1.8 | 1 |
| 1246 | Phase separation in fungi. Nature Microbiology, 2023, 8, 375-386. | 5.9 | 7 |
| 1247 | The HP1Î± protein is mandatory to repress the circadian clock and its output genes during the 12 h period of transcriptional repression. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, . | 3.3 | 1 |
| 1248 | Phase Separation: Direct and Indirect Driving Force for High-Order Chromatin Organization. Genes, 2023, 14, 499. | 1.0 | 4 |
| 1251 | <scp>RNA</scp>â€mediated heterochromatin formation at repetitive elements in mammals. EMBO Journal, 2023, 42, . | 3.5 | 2 |
| 1252 | The p-Arms of Human Acrocentric Chromosomes Play by a Different Set of Rules. Annual Review of Genomics and Human Genetics, 2023, 24, 63-83. | 2.5 | 6 |
| 1253 | Biomolecular condensates: Formation mechanisms, biological functions, and therapeutic targets. MedComm, 2023, 4, . | 3.1 | 3 |
| 1254 | Adaptive partitioning of a gene locus to the nuclear envelope in Saccharomyces cerevisiae is driven by polymer-polymer phase separation. Nature Communications, 2023, 14, . | 5.8 | 2 |
| 1256 | Dynamic compartmentalization of the pro-invasive transcription factor NHR-67 reveals a role for Groucho in regulating a proliferative-invasive cellular switch in C. elegans. ELife, 0, 12, . | 2.8 | 1 |
| 1258 | Surfactants or scaffolds? RNAs of varying lengths control the thermodynamic stability of condensates differently. Biophysical Journal, 2023, 122, 2973-2987. | 0.2 | 1 |
| 1259 | 4D epigenomics: deciphering the coupling between genome folding and epigenomic regulation with biophysical modeling. Current Opinion in Genetics and Development, 2023, 79, 102033. | 1.5 | 10 |
| 1263 | HNRNPU facilitates antibody class-switch recombination through C-NHEJ promotion and R-loop suppression. Cell Reports, 2023, 42, 112284. | 2.9 | 9 |
| 1265 | Dynamics of nuclear architecture during early embryonic development and lessons from liveimaging. Developmental Cell, 2023, 58, 435-449. | 3.1 | 5 |
| 1270 | Developmentally programmed histone H3 expression regulates cellular plasticity at the parental-to-early embryo transition. Science Advances, 2023, 9, . | 4.7 | 4 |
| 1271 | 1,6-Hexanediol regulates angiogenesis via suppression of cyclin A1-mediated endothelial function. BMC Biology, 2023, 21, . | 1.7 | 5 |
| 1272 | Lipid droplets are intracellular mechanical stressors that impair hepatocyte function. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, . | 3.3 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 1273 | Optimizing the Martini 3 Force Field Reveals the Effects of the Intricate Balance between Proteinâ€"Water Interaction Strength and Salt Concentration on Biomolecular Condensate Formation. Journal of Chemical Theory and Computation, 2024, 20, 1646-1655. | 2.3 | 5 |
| 1274 | The role of heterochromatin in 3D genome organization during preimplantation development. Cell Reports, 2023, 42, 112248. | 2.9 | 0 |
| 1275 | Membrane curvature sensing by model biomolecular condensates. Soft Matter, 2023, 19, 3723-3732. | 1.2 | 4 |
| 1276 | A change in biophysical properties accompanies heterochromatin formation in mouse embryos. Genes and Development, 2023, 37, 336-350. | 2.7 | 4 |
| 1277 | Epigenetic switching with asymmetric bridging interactions. Biophysical Journal, 2023, , . | 0.2 | 0 |
| 1278 | Evidence for low nanocompaction of heterochromatin in living embryonic stem cells. EMBO Journal, 2023, 42, . | 3.5 | 7 |
| 1285 | HP1 in Liquidâ€"Liquid Phase Separation and its Regulation by 53BP1. SpringerBriefs in Biochemistry and Molecular Biology, 2023, , 37-43. | 0.3 | 0 |
| 1302 | Biomolecule-Based Coacervates with Modulated Physiological Functions. Langmuir, 2023, 39, 8941-8951. | 1.6 | 3 |
| 1306 | Recent advances in chromosome capture techniques unraveling 3D genome architecture in germ cells, health, and disease. Functional and Integrative Genomics, 2023, 23, . | 1.4 | 0 |
| 1312 | Liquid-Liquid Phase Separation and Nucleic Acids. , 2023, , 1-40. | | 0 |
| 1336 | Liquid-Liquid Phase Separation and Nucleic Acids. , 2023, , 2685-2724. | | 0 |
| 1416 | The Information Theory of Aging. Nature Aging, 2023, 3, 1486-1499. | 5.3 | 5 |
| 1426 | Liquidâ€"liquid phase separation in Alzheimerâ€™s disease. Journal of Molecular Medicine, 2024, 102, 167-181. | 1.7 | 0 |
| 1442 | Transcriptional condensates: a blessing or a curse for gene regulation?. Communications Biology, 2024, 7, . | 2.0 | 0 |