



PUBLICATIONS

DEPARTMENT SIGNALING THROUGH CHROMATIN

> Team ARNOULT / RAY (Genetic, Epigenetic and Therapies of infertility)

Spermaurin, an La1-like peptide from the venom of the scorpion *Scorpio maurus palmatus*, improves sperm motility and fertilization in different mammalian species. Martinez G, Hograindleur JP, Voisin S, Abi Nahed R, Abd El Aziz TM, Escoffier J, Bessonnat J, Fovet CM, De Waard M, Hennebicq S, Aucagne V, Ray PF, Schmitt E, Bulet P, Arnoult C. [Mol Hum Reprod](#). 2016 Dec 8. doi: 10.1093/molehr/gaw075.

Whole-exome sequencing of familial cases of multiple morphological abnormalities of the sperm flagella (MMAF) reveals new DNAH1 mutations. Amiri-Yekta A, Coutton C, Kherraf ZE, Karaouzène T, Le Tanno P, Sanati MH, Sabbaghian M, Almadani N, Sadighi Gilani MA, Hosseini SH, Bahrami S, Daneshpour A, Bini M, Arnoult C, Colombo R, Gourabi H, Ray PF. [Hum Reprod](#). 2016 Oct 26.

Single gene defects leading to sperm quantitative anomalies. Mitchell MJ, Metzler-Guillemain C, Toure A, Coutton C, Arnoult C, Ray PF. [Clin Genet](#). 2016 Oct 25. doi: 10.1111/cge.12900.

Genetic abnormalities leading to qualitative defects of sperm morphology or function. Ray PF, Toure A, Metzler-Guillemain C, Mitchell MJ, Arnoult C, Coutton C. [Clin Genet](#). 2016 Oct 25. doi: 10.1111/cge.12905.

> Team CALLANAN (Genetics and Epigenetics of lymphoid cancers)

Haploinsufficiency for NR3C1, the gene encoding the glucocorticoid receptor, in blastic plasmacytoid dendritic cell neoplasms. Emadali A, Hoghoughi N, Duley S, Hajmirza A, Verhoeyen E, Cosset FL, Bertrand P, Roumier C, Roggy A, Suchaud-Martin C, Chauvet M, Bertrand S, Hamaidia S, Rousseaux S, Josserand V, Charles J, Templier I, Maeda T, Bruder-Costa J, Chaperot L, Plumas J, Jacob MC, Bonnefoix T, Park S, Gressin R, Tensen CP, Mecucci C, Macintyre E, Leroux D, Brambilla E, Nguyen-Khac F, Luquet I, Penther D, Bastard C, Jardin F, Lefebvre C, Garnache F, Callanan M. [Blood](#). 2016 Jun 16;127(24):3040-53. doi: 10.1182/blood-2015-09-671040. Epub 2016 Apr 8.

> Team DIMITROV (Chromatin and Epigenetics)

The flexible ends of CENP-A nucleosome are required for mitotic fidelity

Roulland Y., Ourarhni K., Bednar J., Boopathi R., Naidenov M., Ramos L., Papin C., Papai G., Skoufias D., Schultz P., Angelov D., Hamiche A. & Dimitrov S. [Molecular Cell](#), 2016 Aug 3. pii: S1097-2765(16)30281-7. doi: 10.1016/j.molcel.2016.06.023. [Epub ahead of print]

YL1, H2A.Z-specific histone chaperone, required for ATP-dependent deposition of H2A.Z in chromatin

Latryck, C., Marek, M., Ourarhni, K, Papin, C., Obri, A., Stoll, Y, Ignatieva, M, Dimitrov, S, Romier, C. & Hamiche, A. [Nature Struct & Mol. Biol.](#) 2016 Apr;23(4):309-16.

FACT assists BER by boosting the remodeling activity of RSC

Richard, J.L.C, Shukla, M., Ourarhni, K., Lone, I.N., Roulland, I., Papin, C., Angelov, D., Hamiche, A. & Dimitrov, S. [PLoS Genetics](#) 2016 Jul 28;12(7):e1006221. doi: 10.1371/journal.pgen.1006221. eCollection 2016 Jul.

> **Team KHOCHBIN** (Epigenetics and Cell signalling)

Purification and Analysis of Male Germ Cells from Adult Mouse Testis. Buchou T, Tan M, Barral S, Vitte AL, Rousseaux S, Arechaga J, Khochbin S. [Methods Mol Biol.](#) 2017;1510:159-168.

Remodeling somatic nuclei via exogenous expression of protamine 1 to create spermatid-like structures for somatic nuclear transfer. Czernik M, Iuso D, Toschi P, Khochbin S, Loi P. [Nat Protoc.](#) 2016 Nov;11(11):2170-2188. doi: 10.1038/nprot.2016.130.

Structure of p300 in complex with acyl-CoA variants

Zuzanna Kaczmarek, Esther Ortega, Afsaneh Goudarzi, He Huang, Sunjoo Kim, José A Márquez, Yingming Zhao, Saadi Khochbin & Daniel Panne [Nature Chem Biol.](#) published online: 31 October 2016 | doi: 10.1038/nchembio.2217

Dynamic Competing Histone H4 K5K8 Acetylation and Butyrylation Are Hallmarks of Highly Active Gene Promoters.

Goudarzi A, Zhang D, Huang H, Barral S, Kwon OK, Qi S, Tang Z, Buchou T, Vitte AL, He T, Cheng Z, Montellier E, Gaucher J, Curtet S, Debernardi A, Charbonnier G, Puthier D, Petosa C, Panne D, Rousseaux S, Roeder RG, Zhao Y, Khochbin S. [Mol Cell.](#) 2016 Apr 21;62(2):169-80. doi:10.1016/j.molcel.2016.03.014.

> **Teams KHOCHBIN** (Epigenetics and Cell signalling) / **LAFANECHERE** (Regulation and Pharmacology of the Cytoskeleton)

The growing landscape of tubulin acetylation: lysine 40 and many more. Sadoul K, Khochbin S. [Biochem J.](#) 2016 Jul 1;473(13):1859-68. doi: 10.1042/BCJ20160172.

DEPARTMENT MICROENVIRONNEMENT, CELL
PLASTICITY AND SIGNALING

> **Team ALBIGES-RIZO** (Cell adhesion dynamics and Differentiation)

Mechanotransduction pulls the strings of matrix degradation at invadosome.

Mrkonjic S, Destaing O, Albiges-Rizo C. [Matrix Biol.](#) 2016 Jul 5

Roles of Paxillin family members in adhesion and ECM degradation coupling at invadosomes.

Petropoulos C, Oddou C, Emadali A, Hiriart-Bryant E, Boyault C, Faurobert E, Vande Pol S, Kim-Kaneyama JR, Kraut A, Coute Y, Block M, Albiges-Rizo C, Destaing O. [J Cell Biol.](#) 2016 Jun 6;213(5):585-99.

> **Team EYMIN** (RNA splicing, Cell signaling and Response to therapies)

Nuclear trafficking of EGFR by Vps34 represses Arf expression to promote lung tumor cell survival

Dayde D, Guerard M, Perron P, Hatat A.S, Barrial C, Eymin B and Gazzeri S. [Oncogene.](#) 2016 Jul 28;35(30):3986-94.

> **Team LAFANECHERE** (Regulation and Pharmacology of the Cytoskeleton)

LIM Kinase Inhibitor Pyr1 Reduces the Growth and Metastatic Load of Breast Cancers

Prunier C, Josserand V, Vollaire J, Beerling E, Petropoulos C, Destaing O, Montemagno, C, Hurbin A, Prudent R, de Koning L, et al. [Cancer Res.](#) 2016, 2016 May 23 pii: canres.1864.2015.

DEPARTMENT PREVENTION & THERAPY OF CHRONIC DISEASES

> Team BOTTE (Apicolipid)

Apicoplast-localized lysophosphatidic acid precursor assembly is required for bulk phospholipid synthesis in *Toxoplasma gondii* and relies on an algal/plant-like glycerol 3-phosphate acyltransferase, Amiar S, MacRae JI, Callahan DL, van Dooren GG, Shears MJ, Dubois D, Cesbron-Delauw MF, Maréchal E, McConville MJ, McFadden GI, Yamaro-Botté Y*, Botté CY*. PLOS Pathogens, 4 août 2016.

Characterization of the *Plasmodium falciparum* and *P. berghei* glycerol 3-phosphate acyltransferase involved in FASII fatty acid utilization in the malaria parasite apicoplast, Shears MJ, MacRae JI, Mollard V, Goodman CD, Sturm A, Orchard LM, Llinás M, McConville MJ, Botté CY*, McFadden GI*. Cell Microbiology, 20 juin 2016.

> Team HAKIMI (Host-pathogen interactions & Immunity to infections)

Structural basis for the subversion of MAP kinase signalling by an intrinsically disordered parasite secreted agonist. Erika Pellegrini, Andrés Palencia, Laurence Braun, Ulrike Kapp, Alexandre Bougdour, Hassan Belrhali, Matthew W. Bowler, Mohamed-Ali Hakimi. Structure, published online 23 November 2016. DOI: [10.1016/j.str.2016.10.011](https://doi.org/10.1016/j.str.2016.10.011)

Structural characterization of antibiotic self-immunity tRNA synthetase in plant plant tumour biocontrol agent.

Chopra S, Palencia A, Virus C, Schulwitz S, Temple BR, Cusack S, Reader J. Nat Commun. 2016 Oct 7;7:12928. doi: [10.1038/ncomms12928](https://doi.org/10.1038/ncomms12928).

> Team HAINAUT (Tumor molecular pathology and Biomarkers)

Somatic TP53 Mutations in the Era of Genome Sequencing

Hainaut P, Pfeifer GP. Cold Spring Harb Perspect Med. 2016 Aug 8.

Circulating Osteopontin and Prediction of Hepatocellular Carcinoma Development in a Large European Population

Duarte-Salles T, Misra S, Stepien M, Plymoth A, Muller DC, Overvad K, Olsen A, Tjønneland A, Baglietto L, Severi G, Boutron-Ruault MC, Turzanski-Fortner R, Kaaks R, Boeing H, Aleksandrova K, Trichopoulos A, Lagiou P, Bamia C, Pala V, Palli D, Mattiello A, Tumino R, Naccarati A, Bueno-de-Mesquita HB, Peeters PH, Weiderpass E, Quiros JR, Agudo A, Sanchez-Cantalejo E, Ardanaz E, Gavrila D, Dorronsoro M, Werner M, Hemmingsson O, Ohlsson B, Sjöberg K, Wareham NJ, Khaw KT, Bradbury KE, Gunter MJ, Cross AJ, Riboli E, Jenab M, Hainaut P, Beretta L. Cancer Prev Res (Phila). 2016 Jun 23. pii: [canprevres.0434.2015](https://doi.org/10.1158/1538-7443.CCR15-0434)

> **Team MARCHE** (Analytic Immunology of Chronic diseases)

CXCL-8/IL-8 produced by diffuse large B-cell lymphomas recruits neutrophils expressing a proliferation inducing ligand APRIL. Manfroi B, McKee T, Mayol JF, Tabruyn S, Moret S, Villiers C, Righini C, Dyer M, Callanan M, Schneider P, Tzankov A, Matthes T, Sturm N, Huard B. [Cancer Res](#). 2016 Dec 6. pii: canres.0786.2016. PMID:27923834

Toll-Like Receptor 9 Stimulation Induces Aberrant Expression of a Proliferation-Inducing Ligand by Tonsillar Germinal Center B Cells in IgA Nephropathy. Muto M, Manfroi B, Suzuki H, Joh K, Nagai M, Wakai S, Righini C, Maiguma M, Izui S, Tomino Y, Huard B*, Suzuki Y.* [J Am Soc Nephrol](#). 2016 Dec 5. pii: ASN.2016050496. [Epub ahead of print] *equal contribution PMID:27920152

Revisiting IL-6 antagonism in multiple myeloma. Matthes T, Manfroi B, Huard B. [Crit Rev Oncol Hematol](#). 2016 Sep;105:1-4. doi: 10.1016/j.critrevonc.2016.07.006. Review. PMID:27497026

Ex Vivo Assessment of Testicular Toxicity Induced by Carbendazim and Iprodione, Alone or in a Mixture Cédric Pisani, Sébastien Voisin, Karim Arafah, Philippe Durand, Marie-Hélène Perrard, Marie-Roberte Guichaoua, Philippe Bulet and Odette Prat [ALTEX](#). 2016;33(4):393-413. doi: 10.14573/altex.1601253. Epub 2016 May 8

> **Team TARDIEUX** (Cell and Membrane dynamics of parasite-host interactions)

Genetic impairment of parasite myosin motors uncovers the contribution of host cell membrane dynamics to Toxoplasma invasion forces. Marion Bichet, Bastien Touquet, Virginie Gonzalez, Isabelle Florent, Markus Meissner and Isabelle Tardieux, [BMC Biology](#) 201614:97 DOI: 10.1186/s12915-016-0316-8