

Dorian OBINO, PhD, HDR | CRCN INSERM · ATIP-Avenir Team Leader

Institut de Recherche Saint-Louis (IRSL), UMR1342 INSERM / Université Paris Cité, Paris, France
Team 17 – "B cells & Skin Biology"
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Scientific Profile

Dorian Obino is an immunologist specializing in B cell biology and skin physiopathology. Since January 2025, he leads the ATIP-Avenir team "B cells & Skin Biology" at the Institut de Recherche Saint-Louis (IRSL, Paris). His research program aims to decipher the role of B lymphocytes in inflammatory, autoimmune, and fibrotic skin diseases — including autoimmune bullous diseases (AIBD) and systemic sclerosis — by combining cutting-edge basic and translational immunology, cell biology, and *in vivo* murine models. His dual expertise in B lymphocyte biology (PhD, Institut Curie, 2012–2016) and innate cutaneous immunity (Postdoc, Institut Pasteur, 2017–2022) provides a unique integrative perspective, from the cellular to the tissue scale, particularly relevant for the development of novel therapeutic strategies.

Current Position

Since Jan. 2025 **ATIP-Avenir Team Leader**, Team 17 "B cells & Skin Biology"
IRSL – UMR1342 INSERM / Université Paris Cité, Paris
Since Oct. 2022 **Permanent Research Scientist** (CRCN), INSERM CSS3

Education & Degrees

Sept. 2023 **Habilitation to Supervise Research (HDR)** – Université Paris-Saclay
June 2016 **PhD in Immunology** – Université Paris Descartes (now Université Paris Cité)
Institut Curie, INSERM U932, Paris – PhD Director: Ana-Maria Lennon-Duménil
2010 – 2012 **MSc in Genetics & Magistère Européen de Génétique** (spec. Immunogenetics) – Université Paris Diderot (now Université Paris Cité)
2009 – 2010 **Bachelor in Genetics** – Université Paris Diderot (now Université Paris Cité)
2007 – 2009 **DUT Génie Biologique** – Université du Sud Toulon Var

Training & Certification

2025 **Management of a junior research team** – CNRS Biology
2023 **Mouse surgery** – Institut Pasteur
2022 **Project Designer in Animal Experimentation** – Institut Pasteur

Research Experience

Oct. 2022 – Dec. 2024 **INSERM Research Scientist** – Institut Pasteur, Paris
Units of G. Duménil (INSERM U1225) & E. Gomez-Perdiguero (CNRS UMR3738)
Perivascular macrophages in skin physiopathology
Jan. 2017 – Sept. 2022 **Postdoctoral Fellow** – Institut Pasteur, Paris
Unit of G. Duménil (INSERM U1225)
Immunobiology of meningococcal intravascular infections
Jan. 2012 – Dec. 2016 **PhD Student** – Institut Curie, Paris
Team of A.-M. Lennon-Duménil (INSERM U932)
Molecular mechanisms regulating B lymphocyte polarization and function

Selected Grants & Funding

2024 **ATIP-Avenir Program**, INSERM – €350,000 over 5 years (team funding)
2025 **Société Française de Dermatologie** (SFD) – €45,000 over 3 years
2025 **Galénic Dermatology Research Fund** – €20,000 over 1 year
2018 – 2020 **Pasteur-Roux Postdoctoral Fellowship** – Institut Pasteur, Paris
2015 – 2016 **4th-Year PhD Fellowship** – Fondation pour la Recherche Médicale (FRM)

Awards & Distinctions

April 2026 Team certification – DIM Ile-de-France BioConvS
March 2026 Team certification – IHU Immun4Cure
2016 Best PhD Work in Biological Sciences – Académie Nationale de Pharmacie, Paris

Memberships to Scientific Societies

Since 2025	Member: Société Française de Dermatologie (SFD)
Since 2024	Member: Société de Recherche Dermatologique (SRD)
Since 2023	Member: Groupe Francophone de Recherche sur la Sclérodermie (GFRS)
Since 2022	Member: Société Française de Biologie Cellulaire (SFBC)
Since 2022	Member: Société Française d'Immunologie (SFI)
2022	Contributor to the Immune Map Project (S. González, IRB, Switzerland) <u>Publication</u> : Pizzagalli DU et al. <i>Systematic analysis of immune cell motility leveraging the open intravital microscopy database Immunemap</i> . EMBO J. (2026)

Expertise

- **Leading expertise in B lymphocyte biology**, including mechanisms of activation, antigen presentation, and regulation of B cell subsets in tissues.
- **Established skills in cutaneous immunology** and the study of immune cell / stromal microenvironment interactions.
- **Conducting state-of-the-art experimental approaches**: spectral flow cytometry, advanced microscopy (confocal, intravital), single-cell analyses, transgenic murine models, and fate-mapping strategies, human samples.

Scientific Communication – Oral Presentations

2016 – 2026 9 talks as invited speaker + 4 talks as abstract-based selected speaker

Supervision & Scientific Outreach

Current supervision: 1 postdoctoral researcher, 1 PhD student, 2 Master's students.

Past supervision: 1 postdoc, 2 PhD students, 7 Master's students, 3 research engineers.

PhD thesis jury member (Université Paris Cité, 2023; Université PSL, 2025)

PhD thesis committee member (Institut Pasteur, 2022 – 2025; Université de Montpellier, since 2025).

Peer reviewer for Molecular Biology of the Cell and Clinical and Translational Medicine.

Grant evaluator for Versus Arthritis and GFRS (2025).

Publications

Original research articles

- Sahnine M, Crochet M, Tachon S, Goussard S, Pénard E, Scandola C, Duchateau M, Gaii Gianetto Q, Salles A, Moneron G, Swistak L, Charles-Orszag A, Mallet A, Matondo M, Tinevez JY, Bonazzi D, Sartori-Rupp A, Duménil G[#], and **Obino D[#]**. *Arf1 is involved in Neisseria meningitidis-induced cortical branched F-actin network reorganization*. **EMBO Reports**. (2026). #Co-corresponding authors.
- Pizzagalli DU, Carrillo-Barberà P, Bansal H, Palladino E, Ceni K, Thelen B, Pulfer A, Moscatello E, Fiamma Cabini R, Textor J, M N Wortel I; **Immunemap Consortium^{*}**; Krause R, Fernandez Gonzalez S. *Systematic analysis of immune cell motility leveraging the open intravital microscopy database Immunemap*. **EMBO J**. (2026). *Dorian OBINO as part of the Immunemap Consortium.
- Pinon L, Chabaud M, Nivoit P, Wong Ng J, Nguyen TT, Paul V, Bouquerel C, Goussard S, Smilovici P, Frachon E, **Obino D[#]**, Gobaa S, Dumenil G. *An in vitro human vessel model to study Neisseria meningitidis colonization and vascular damages*. **Elife**. (2025).
- **Obino D[#]**, Maurin M, Lescure A, Terriac E, Del Nery E, Yuseff MI, Lennon-Duménil AM, Moreau HD[#]. *Image-based phenotypic siRNA screen to unveil the molecular basis of B lymphocyte polarization*. **Scientific Data** (2023). #Co-corresponding authors.
- Adé K^{*}, Saenz Coronilla J^{*}, **Obino D[#]**, Weinberger T, Kaiser C, Mella S, Chen C, Katsimpardi L, Werts C, Li H, Dardenne P, Lallemand Y, Gomez Perdiguero E. *Inflammation drives age-induced loss of tissue resident macrophages*. **BioRxiv** (2022) <https://doi.org/2022.10.02.510513>. *Co-first authors.
- Corre JP^{*}, **Obino D[#]**, Nivoit P, Yatim A, Schmitt T, Duménil G[#]. *Anti-thrombotic treatment enhances antibiotic efficiency in a humanized model of meningococemia*. **BioRxiv** (2022). <https://doi.org/10.1101/2022.01.10.475613>. *Co-first authors; #Co-corresponding authors.
- Manriquez V, Nivoit P, Urbina T, Echenique-Rivera H, Melican K, Fernandez-Gerlinger MP, Flamant P, Schmitt T, Bruneval P, **Obino D[#]**, Duménil G[#]. *Colonization of dermal arterioles by Neisseria meningitidis provides a safe haven from neutrophils*. **Nat Commun**. (2021). #Co-corresponding authors.

- Aubey F*, Corre JP*, Kong Y*, Xu X*, **Obino D**, Goussard S, Lapeyriere C, Souphron J, Couturier C, Renard S, Dumenil G. *Inhibitors of the Neisseria meningitidis PilF ATPase provoke type IV pilus disassembly*. **PNAS USA**. (2019). *Co-first authors.
- Saez JJ, Diaz J, Ibanez J, Bozo JP, Cabrera Reyes F, Alamo M, Gobert FX, **Obino D**, Bono MR, Lennon-Dumenil AM, Yeaman C, Yuseff MI. *The exocyst controls lysosome secretion and antigen extraction at the immune synapse of B cells*. **J. Cell Biol.** (2019).
- Inoue D*, **Obino D***, Pineau J, Farina F, Gaillard J, Guerin C, Blanchoin L, Lennon-Dumenil AM, Thery M. *Actin filaments regulate microtubule growth at the centrosome*. **EMBO J.** (2019). *Co-first authors.
- **Obino D**, Fetler L, Soza A, Malbec O, Saez JJ, Labarca M, Oyanadel C, Del Valle Batalla F, Goles N, Chikina A, Lankar D, Segovia-Miranda F, Garcia C, Leger T, Gonzalez A, Espeli M, Lennon-Dumenil AM, Yuseff MI. *Galectin-8 Favors the Presentation of Surface-Tethered Antigens by Stabilizing the B Cell Immune Synapse*. **Cell Reports**. (2018).
- **Obino D***, Diaz J*, Saez JJ, Ibanez-Vega J, Saez PJ, Alamo M, Lankar D, Yuseff MI. *Vamp-7-dependent secretion at the immune synapse regulates antigen extraction and presentation in B-lymphocytes*. **Mol Biol Cell**. (2017). *Co-first authors.
- Vargas P, Maiuri P, Bretou M, Saez PJ, Pierobon P, Maurin M, Chabaud M, Lankar D, **Obino D**, Terriac E, Raab M, Thiam HR, Bocker T, Kitchen-Goosen SM, Alberts AS, Sunareni P, Xia S, Li R, Voituriez R, Piel M, Lennon-Dumenil AM. *Innate control of actin nucleation determines two distinct migration behaviours in dendritic cells*. **Nat Cell Biol**. (2016).
- **Obino D**, Farina F, Malbec O, Saez PJ, Maurin M, Gaillard J, Dingli F, Loew D, Gautreau A, Yuseff MI, Blanchoin L, Thery M, Lennon-Dumenil AM. *Actin nucleation at the centrosome controls lymphocyte polarity*. **Nat Commun**. (2016).
- Ibanez L, Abou-Ezzi G, Ciucci T, Amiot V, Belaid N, **Obino D**, Mansour A, Rouleau M, Wakkach A, Blin-Wakkach C. *Inflammatory Osteoclasts Prime TNFalpha-Producing CD4(+) T Cells and Express CX3CR1*. **J Bone Miner Res**. (2016).
- Reversat A*, Yuseff MI*, Lankar D**, Malbec O**, **Obino D****, Maurin M, Penmatcha NV, Amoroso A, Sengmanivong L, Gundersen GG, Mellman I, Darchen F, Desnos C, Pierobon P, Lennon-Dumenil AM. *Polarity protein Par3 controls B-cell receptor dynamics and antigen extraction at the immune synapse*. **Mol Biol Cell**. (2015). *Co-first authors. **Co-second authors.
- Ghislin S, **Obino D**, Middendorp S, Boggetto N, Alcaide-Loridan C, Deshayes F. *LFA-1 and ICAM-1 expression induced during melanoma-endothelial cell co-culture favors the transendothelial migration of melanoma cell lines in vitro*. **BMC Cancer**. (2012).
- Ghislin S, **Obino D**, Middendorp S, Boggetto N, Alcaide-Loridan C, Deshayes F. *Junctional adhesion molecules are required for melanoma cell lines transendothelial migration in vitro*. **Pigment Cell Melanoma Research**. (2011).

Review articles & Book chapters

- **Obino D**, Dumenil G. *The Many Faces of Bacterium-Endothelium Interactions during Systemic Infections*. **Microbiology Spectrum** (2019). Part of the Book *Bacteria and Intracellularly* edited by Pascale Cossart, Craig R. Roy and Philippe Sansonetti.
- Bretou M*, Kumari A*, Malbec O*, Moreau HD*, **Obino D***, Pierobon P*, Randrian V*, Saez PJ*, Lennon-Dumenil AM*. *Dynamics of the membrane-cytoskeleton interface in MHC class II-restricted antigen presentation*. **Immunological Reviews** (2016). *All authors equally contributed to this work.
- **Obino D**, Lennon-Dumenil AM. *A critical role for cell polarity in antigen extraction, processing, and presentation by B lymphocytes*. **Advances in Immunology** (2014). Part of the Book: *Cell biology of the B cell Receptor* edited by Hidde L. Ploegh.