

Damien GOUTTE-GATTAT

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Profile

Biocurator specialised in curating large datasets from high-throughputs experiments. Ontology engineer with significant experience editing complex ontologies and maintaining the associated tools and workflows.

Former cellular and molecular biologist specialised in studying chromatin and cell division in both cultured human cells and *Drosophila melanogaster* models.

Education

- Dec 2011** Ph.D. in **Cellular and Molecular Biology**, University of GRENOBLE, France.
Investigating mitotic functions of CENP-A N-tail.
Publicly defended on december 16th, 2011.
- Jun 2007** Master of Science in **Cellular and Molecular Biology**, Joseph Fourier University, GRENOBLE, France.
- Jun 2005** Bachelor of Science in **Biology**, Joseph Fourier University, GRENOBLE, France.

Research Experience

- Apr 2021–** Data curator and ontology engineer, FlyBase Group, University of CAMBRIDGE, UK.
Curating Drosophila single-cell RNA-sequencing data into FlyBase.
- 2017–2021** Postdoctoral fellow in Barts Cancer Institute, Queen Mary University of LONDON, UK.
Investigating tumour heterogeneity of glioblastomas in D. melanogaster.
- 2013–2017** Postdoctoral fellow in Institut Européen de Chimie et Biologie, BORDEAUX, France.
Investigating segregation of damaged chromosomes in D. melanogaster.
- 2012–2013** Researcher in Institut Albert Bonniot, INSERM U823, GRENOBLE, France.
- 2007–2011** Graduate student in Institut Albert Bonniot, INSERM U823, GRENOBLE, France.
Investigating functions of CENP-A N-tail domain in mitosis.
- Jan–Jun 2007** Internship in Institut Albert Bonniot, INSERM U823, GRENOBLE, France.
Mitotic functions of centromeric H3 variant CENP-A.
- Apr–Jul 2006** Internship in Institut Albert Bonniot, INSERM U309, GRENOBLE, France.
Expression and localization of centromeric H3 variant Cenpa.
- Jun–Jul 2005** Internship in Institut Albert Bonniot, INSERM U309, GRENOBLE, France.

Teaching Experience

- 2018–2020** Queen Mary University of LONDON, Bachelor of Medicine and Surgery.
Facilitator for Problem-Based Learning tutorials in neurobiology, biochemistry and developmental biology.
Lecture on model organisms in cancer research.
- 2016** University of BORDEAUX, MSc of Life Sciences.
Lecture on DNA damage, repair, and the cell cycle.
- 2010–2011** Joseph Fourier University, MSc of Life Sciences.
Tutorials and lectures of developmental biology.
- 2007–2010** Joseph Fourier University, BSc of Life Sciences.
Tutorials of biochemistry, cell and developmental biology.

PUBLICATIONS

 orcid.org/0000-0002-6095-8718

- Harshad HEGDE, Jennifer VENDETTI, **Damien GOUTTE-GATTAT**, J. CAUFIELD, John B. GRAYBEAL, Nomi HARRIS, Naouel KARAM, Christian KINDERMANN, Nicolas MATENTZOGLU, James OVERTON, Mark A. MUSEN, and Christopher MUNGALL (2025). A Change Language for Ontologies and Knowledge Graphs. *Database*, **2025**:baae133.
- **Damien GOUTTE-GATTAT**, and Nicolas MATENTZOGLU (2024). Re-bridging the anatomy ontologies with SSSOM. *Proceedings of the 15th International Conference on Biomedical Ontology*, Enschede, The Netherlands, 18–19 July 2024, CEUR-WS.org, online CEUR-WS.org/Vol-3939/short1.pdf.
- Nancy GEORGE, Silvie FEXOVA, Alfonso Munoz FUENTES, Pedro MADRIGAL, Yalan BI, Haider IQBAL, Upendra KUMBHAM, Nadja Francesca NOLTE, Lingyun ZHAO, Amil S. THANKI, Iris D. YU, Jose C. MARUGAN CALLES, Karoly ERDOS, Li-ora VILMOSKY, Sandeep R. KURRI, Anna VATHRAKOKOILI-POURNARA, David OSUMI-SUTHERLAND, Ananth PRAKASH, Sengbo WANG, Marcela K. TELLO-RUIZ, Sunita KUMARI, Doreen WARE, **Damien GOUTTE-GATTAT**, Yanhui HU, Nick BROWN, Norbert PERRIMON, Juan Antonio VIZCAÍNO, Tony BURDETT, Sarah TEICHMANN, Alvis BRAZMA, and Irene PAPATHEODOROU (2024). Expression Atlas update: insight from sequencing data at both bulk and single cell level. *Nucleic Acids Res.*, **52**(D1):D107–D114.
- Arzu ÖZTÜRK-ÇOLAK, Steven J. MARYGOLD, Giulia ANTONAZZO, Helen ATTRIL, **Damien GOUTTE-GATTAT**, Victoria K. JENKINS, Beverley B. MATTHEWS, Gillian MILLBURN, Gilberto DOS SANTOS, Christopher J. TABONE, and THE FLY-BASE CONSORTIUM (2024). FlyBase: updates to the Drosophila genes and genomes database. *Genetics*, doi:10.1093/genetics/iyad211.
- Nicolas MATENTZOGLU, Ian BRAUN, Anita R. CARON, **Damien GOUTTE-GATTAT**, Benjamin M. GYORI, Nomi L. HARRIS, Emily HARTLEY, Harshad B. HEGDE, Sven HERTLING, Charles Tapley HOYT, HyeonSik KIM, Huanyu LI, James McLAUGHLIN, Cassia TROJAHN, Nicole VASILEVSKY, and Christopher J. MUNGALL (2023). A Simple Standard for Ontological Mappings 2023: Updates on data model, collaborations and tooling. *Proceedings of the 18th International Workshop on Ontology Matching*, Athens, Greece, 7 November 2023, CEUR-WS.org.
- **Damien GOUTTE-GATTAT** (2022). Summarising scRNAseq expression data in FlyBase. *Proceedings of the 13th International Conference on Biomedical Ontology*, Ann Arbor, Michigan, USA, 25-28 September 2022, CEUR-WS.org, online CEUR-WS.org/Vol-3805/ICBO-2022_paper_833.pdf.
- Nicolas MATENTZOGLU, **Damien GOUTTE-GATTAT**, Shawn Zheng Kai TAN, James P. BALHOFF, Seth CARBON, Anita R. CARON, William B. DUNCAN, Joe E. FLACK, Melissa HAENDEL, Nomi L. HARRIS, William R. HOGAN, Charles Tapley HOYT, Rebecca C. JACKSON, HyeonSik KIM, Huseyin KIR, Martin LARRALDE, Julie A. McMURRY, James A. OVERTON, Bjoern PETERS, Clare PILGRIM, Ray STEFANCSIK, Sofia MC ROBB, Sabrina TORO, Nicole A. VASILEVSKY, Ramona WALLS, Christopher J. MUNGALL, and David OSUMI-SUTHERLAND (2022). Ontology Development Kit: a toolkit for building, maintaining and standardizing biomedical ontologies. *Database*, **2022**:baac087.
- L. Sian GRAMATES, Julia AGAPITE, Helen ATTRILL, Brian R. CALVI, Madeline A. CROSBY, Gilberto DOS SANTOS, Joshua L. GOODMAN, **Damien GOUTTE-GATTAT**, Victoria K. JENKINS, Thomas KAUFMAN, Aoife LARKIN, Beverley B. MATTHEWS, Gillian MILLBURN, and Victor B. STRELETS (2022). FlyBase: A guided tour of highlighted features. *Genetics*, **220**(4):iyac035.
- Cédric LANDMANN, Priscillia PIERRE-ELIÈS, **Damien GOUTTE-GATTAT**, Émilie MONTEBAULT, Marie-Charlotte CLAVERIE, and Anne ROYOU (2020). The Mre11-Rad50-Nbs1 complex mediates the robust recruitment of Polo to DNA lesions during mitosis. *J. Cell Sci.*, **133**(13):jcs.244442.
- Cecilia H. FERNÁNDEZ-ESPARTERO, Alberto RIZZO, Alexander D. FULFORD, Julia FALO-SANJUAN, **Damien GOUTTE-GATTAT**, and Paulo S. RIBEIRO (2018). Prp8 regulates oncogene-induced hyperplastic growth in *Drosophila*. *Development*, **145**(22):dev162156.
- Jérôme TOUTAIN, **Damien GOUTTE-GATTAT**, Jacques HOROVITZ, and Robert SAURA (2018). Confined placental mosaicism revisited: Impact on pregnancy characteristics and outcome. *PloS ONE*, **13**(4):e0195905.

- Nicolas DERIVE, Cédric LANDMANN, Émilie MONTEBAULT, Marie-Charlotte CLAVERIE, Priscillia PIERRE-ELIÈS, **Damien GOUTTE-GATTAT**, Nabila FOUNOUNOU, Derek MCCUSKER, and Anne ROYOU (2015). Bub3/BubR1-dependent sequestration of *Cdc20^{Fizzy}* at DNA breaks facilitates the correct segregation of broken chromosomes. *J. Cell Biol.*, **211**(3):512–532.
- **Damien GOUTTE-GATTAT**, Muhammad SHUAIB, Khalid OUARARHNI, Thierry GAUTIER, Dimitrios SKOUFIAS, Ali HAMICHE, and Stefan DIMITROV (2013). Phosphorylation of the CENP-A amino-terminus in centromeric chromatin is required for kinetochore function. *Proc. Natl. Acad. Sci. USA*, **110**(21):8579–8584.
- Dogus ALTINTAS, Manu SHUKLA, **Damien GOUTTE-GATTAT**, Dimitar ANGELOV, Jean-Pierre ROUAULT, Stefan DIMITROV, and Jacques SAMARUT (2012). Direct cooperation between androgen receptor and E2F1 reveals a common regulation mechanism for androgen-responsive genes in prostate cells. *Mol. Endocrinol.*, **26**(9):1531–1541.
- Sam MEYER, Nils B. BECKER, Sajad H. SYED, **Damien GOUTTE-GATTAT**, Manu S. SHUKLA, Jeffrey J. HAYES, Dimitar ANGELOV, Jan BEDNAR, Stefan DIMITROV, and Ralf EVERAERS (2011). From crystal and NMR structures, footprints and cryo-electron-micrographs to large and soft structures: nanoscale modeling of the nucleosomal stem. *Nucleic Acids Res.*, **39**(31):9139–9154.
- Manu S. SHUKLA, Sajad H. SYED, **Damien GOUTTE-GATTAT**, John L. C. RICHARD, Fabien MONTEL, Ali HAMICHE, Andrew TRAVERS, Cendrine FAIVRE-MOSKALENKO, Jan BEDNAR, Jeffrey J. HAYES, Dimitar ANGELOV, and Stefan DIMITROV (2011). The docking domain of histone H2A is required for H1 binding and RSC-mediated nucleosome remodeling. *Nucleic Acids Res.*, **39**(7):2559–2570.
- Sajad H. SYED, **Damien GOUTTE-GATTAT**, Nils BECKER, Sam MEYER, Manu S. SHUKLA, Jeffrey J. HAYES, Ralf EVERAERS, Dimitar ANGELOV, Jan BEDNAR, and Stefan DIMITROV (2010). Single base resolution of H1-nucleosome interactions and 3D organization of the nucleosome. *Proc. Natl. Acad. Sci. USA*, **107**(21):9620–9625.

SEMINARS & POSTERS

Jul 2025	Guest speaker at the 26th Bioinformatics Open Source Conference (BOSC), LIVERPOOL, UK.
Jul 2024	Guest speaker at the 15th International Conference on Biomedical Ontologies (ICBO), ENSCHEDE, The Netherlands.
Apr 2023	Poster presentation at the 16th International Biocuration Conference, PADUAA, Italy.
Mar 2023	Poster presentation at the 64th Annual Drosophila Research Conference, CHICAGO, Illinois.
Sep 2022	Guest speaker at the 13th International Conference on Biomedical Ontologies (ICBO), ANN ARBOR, Michigan.
Feb 2022	Guest speaker at FOSDEM 2022, BRUSSELS, Belgium.
Oct 2019	Poster presentation at the William Harvey Day, LONDON, UK.
Jun 2015	Poster presentation at the FASEB “Mitosis: Spindle Assembly and Function” Meeting, BIG SKY, Montana.
Dec 2014	Poster presentation at the TransBioMed Scientific Day, PESSAC, France.
Jan 2013	Guest speaker at Institut Européen de Chimie et Biologie, BORDEAUX, France.
Dec 2012	Guest speaker at Bilkent University, ANKARA, Turkey.
Sep 2011	Poster presentation at EMBO Meeting 2011, VIENNA, Austria.
Jun 2009	Speaker at Doctoral School of Chemistry and Life Sciences, GRENOBLE, France.

Extra-scientific Activities

2018–2021	Post-doctoral fellow representative of the Health & Safety Board of the Barts Cancer Institute.
2008–2009	Member of the organizing committee of the Institut Albert Bonniot annual seminar 2008: <i>Virus vs. Cell: Molecular Confrontations and Consequences</i> ; 2009: <i>Developmental Origins of Adult Diseases: does foetal environment impact future health? From Epidemiology to Epigenetics</i> .
2008–2009	Member of the editorial board of <i>Visions croisées</i> , popular science magazine of Joseph Fourier University.

Technical Expertise

INFORMATION TECHNOLOGY / SEMANTIC TECHNOLOGY

Administration GNU/Linux desktop and server systems.

Scientific software Protégé, ROBOT, Ontology Development Kit for OWL ontology editing and maintenance.
Scientific Python stack (Numpy/Scipy/Pandas/etc.).
ImageJ and OMERO for image analysis.

Programming Proficient in C, Python, Java.
Maintainer of several free software projects related to semantic web technologies, including:
– the Ontology Development Kit;
– the Protégé ontology editor;
– the Simple Standard for Sharing Ontological Mappings.
Online repositories: github.com/gouttegd, git.incenp.org/damien.

Typesetting Proficient in L^AT_EX.

LIFE SCIENCES

Molecular biology Standard and Gateway cloning
RT-PCR

Cell biology Culture of mammalian and insect cells
Transient and lentivirus-mediated stable transfections
Ex-vivo culture of fly tissues

Microscopy Confocal microscopy
Time-lapse microscopy on mammalian cells and fly tissues
Photo-ablation
Automated image analysis

Genetics Fly pushing

Languages

French Native speaker.

English Fluent (CEFR level C1).