

Almouzni biosketch



Geneviève ALMOUZNI, PhD (EMBO member, Member of the French Academy of Sciences, fellow of the American Association for the Advancement of Sciences, Director of the Research Center of the Institut Curie from sept 2013 to September 2018 and honorary director since then) is director of research exceptional class at the CNRS. She is Principal Investigator of the Chromatin dynamics team in the Nuclear dynamics research Unit (UMR3664 CNRS/Institut Curie) since 1999. She is a world leader in understanding genome organization and function during development and disease in particular in cancer. She has combined biochemistry, cell biology and physical approaches with advanced imaging to explore chromatin dynamics. Overall, G. Almozni authored more than 220 publications and deposited 5 patents. Active in the field of Epigenetics and European actions, she coordinated the EpiGeneSys Network of Excellence to move epigenetics towards systems biology. She is highly engaged in promoting young scientist career. She

received prestigious grants (ERC Advanced Grants) and awards including Woman in Sciences FEBS / EMBO (2013) and the grand prix FRM (2014). She served on the EMBO Council (Vice-chair in 2014), chair of the alliance EU-LIFE, she co-chairs the European FETFlagship initiative LifeTime with Prof. N. Rajewski at the MDC Berlin.

Geneviève ALMOUZNI

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Curriculum Vitae

Personal	Position		
Name: Geneviève Almozni Date of birth: August 9, 1960 Nationality: French Married, one Child: Emmanuel (Dec 5,1990)	CNRS Director (DRCE) Head of the Chromatin Dynamics team Honorary Director of the Research Center of IC UMR3664, Institut Curie, Paris, France ORCID: 0000-0001-5570-0723		
Education/Institution & location	Degree	Year(s)	Field of study
CNRS- IPGR (Giovanni Domenico Cassini Class)		1998-99	Management qualification
Habilitation for Direction of Research (HDR)	HDR	1996	Chromatin Biology
University Paris VI, France	PhD	1988	Microbiology
Ecole Normale Supérieure - University Paris VI & Institut Pasteur, France	Master	1985	Microbiology – Virology
Ecole Normale Supérieure Fontenay aux Roses & University Paris VI, France	Agregation & B.S.	1980-84 1984	Biochemistry & Nutrition Biochemistry

Current & Previous Positions

2015 – present **CNRS Director (DRCE), Head of the Chromatin Dynamics team, Honorary Director of the Research Center** at IC, UMR3664, Institut Curie, Paris, France

2013 – 2018 **Director of the Research Center** at the Institut Curie, Paris, France

2009 – 2013 **Deputy Director of the Research Center Educational Programme** at the Institut Curie

2000 – 2015 **Head of the Nuclear Dynamics Dept (UMR3664)**
& Group leader of the Chromatin Dynamics team, UMR3664, Institut Curie, Paris, France

1999 – 2000 **Head of the Genotoxicology and Modulation of the Gene Expression Dept (UMR218)**
& Group leader of the Chromatin Dynamics team, UMR218, Institut Curie, Paris, France

1994 – 1998 **CNRS ATIPE/ Junior Group leader of the Chromatin Dynamics team**, UMR 144, Institut Curie, Paris, France

1991 – 1993 **Postdoctoral Associate**: EMBO and Fogarty funding with Dr. A. Wolffe, National Institute of Health, Bethesda, USA

1989 – 1993 **CNRS Research Scientist (CR2)** with Dr. M. Méchali, Institut J. Monod, Paris, France

1988 – 1989 **Post-doctoral Fellow**: short term EMBO with Dr. A. Wolffe, National Institute of Health, Bethesda, USA

1985 – 1988 **PhD thesis** with Dr. M. Méchali, Institut J. Monod, Paris, France

Major scientific responsibilities & Grants

2018 – present **Co-coordination of the European initiative LifeTime**, FETFlagship with N. Rajewski (MDC, Berlin, Germany) (<https://lifetime-fetflagship.eu/>)

2018 – 2019 **Chair of EU-LIFE**, alliance of 13 European Institutes (<http://eu-life.eu/>)
 2018 – 2022 **PI of the MSCA – ITN 2018 Grant ChromDesign**: Chromatin architecture and Design
 2016 – 2020 **PI of the MSCA – ITN 2016 Grant Episystem**
 2016 – 2021 **PI of the ERC Advanced Grant ChromADICT**
 2013 – 2018 **Director of the Research Center** at the Institut Curie, Paris, France
 2012 – 2019 **Coordinator of the Laboratory of Excellence LABEX DEEP** (Development, Epigenesis, Epigenetics & life-time Potential; <http://www.labex-deep.fr/>) together with E. Heard (UMR3215/U934, Institut Curie, Paris, France)
 2010 – 2016 **Scientific Coordinator of the European Network of Excellence EpiGeneSys**
 2000 – 2015 **Head of the Nuclear Dynamics Dept**, UMR3664, Institut Curie, Paris, France
 Since 1994 **Group Leader of the Chromatin Dynamics team**, Institut Curie, Paris, France

Publications

1988 – present 239 publications

6 patents

H-index: 74

Average citation per item: 71.57

Education Activities

2009 – 2013: **Deputy Director - Educational Program** of the Research Center at the Institut Curie. These programs engage per year about 200 Masters, 250 PhDs, 250 Post-docs & 16 Junior PI.

Since 2004: **Regular involvement in international courses (Master and PhD levels)**; scientific coordinator of the Epigenetics, Chromatin and Nuclear Organization course (every year at the Institut Curie, Paris); Training coordinator in European international training networks Nucleosome 4D, Image DDR and EpiSyStem (summer schools & workshops); Regular contributor to the Gene Expression course at CSH Lab, US, and other courses in France and Europe.

Since 1996: **PhD & HDR committees**: over 70 in France, UK, Switzerland, etc.

Since 1996: **Mentoring of 20 PhD students and 45 Post-doctoral fellow**, of whom many are now independent group leaders with academic positions in universities, have positions in industry or patent law firms. Several of them received prestigious awards, including ERC awards in Europe.

Promotion of junior groups: acting for competitive recruitment and integration of young investigators, notably as Co-coordinator of the LabEx DEEP (by formalising starting packages and mentoring processes) and setting up the RISE programme as Scientific Coordination of the EpiGeneSys network.

Promoting women in sciences, notably through mentees and the LIBRA initiative as chair of EU Life.

Science Dissemination & Policy

- **Organisation of international conferences**. For example recently: EMBO Conference Chromatin & Epigenetics (every 2 years, Heidelberg, Germany), Keystone Symp Genomic Instability & DNA Repair (2017, Colorado, US), Cold Spring Harbor Laboratory Symp Chromatin, Epigenetics & Transcription (2018, Suzhou, Chine), HIV Cure Cancer Forum (2017, Paris, France), EMBO at Basel Life (2017, Basel, Switzerland).
- **Invited speaker** to numerous conferences and symposiums as keynote speaker.
- **Contribution to science policy**, notably through several white papers for EU Life: FP9, towards better research value in Europe: translating knowledge to innovation (2017), The next horizon: EU-LIFE vision for FP9 (2017), ERC 10th anniversary (2017), H2020 mid-term review: implementation aspects (2017), Key elements for excellence in research (2016), On the concept of an European Innovation Council (2016), EU-LIFE Open Statement on the Strategic Investment Fund (Juncker Plan) (2015)
- **Science for citizens**: multiple interviews on the media (e.g. France Inter, Radio Canada, France 5, France 3, Le Temps), contributions to science magazines for the general public (e.g. Biofutur) and support to Art & Science initiatives in the context of DEEP (e.g. Art & science exhibition Expériences 2015, music inspired by science project Muse-IC 2016-2019, kids book collection Esprit CURIEux 2018).

10 Selected publications (*marks 5 key contributions to the field of Epigenetics and chromatin regulation as explained in the text above)

1. *Sitbon D, Boyarchuk E, Dingli F, Loew D and Almouzni G. (2020) Histone variant H3.3 residue S31 is essential for *Xenopus* gastrulation regardless of the deposition pathway, *Nat Comm*. Mar 9;11(1):1256. PMID:32152320 DOI: <https://doi.org/10.1038/s41467-020-15084-4>
2. Clément C, Orsi GA, Gatto A, Boyarchuk E, Forest A, Hajj B, Miné-Hattab J, Garnier M, Gurard-Levin ZA, Quivy JP, Almouzni G (2018) High-resolution visualization of H3 variants during replication reveals

their controlled recycling. *Nat Comm.* **9**:3181 PMID:30093638. DOI: <https://doi.org/10.1038/s41467-018-05697-1>

3. Lacoste N., Woolfe A., Tachiwana H., Garea A.V., Barth T., Cantaloube S., Kurumizaka H., Imhof A. & Almouzni G. (2014) Mislocalization of the centromeric histone variant CenH3/CENP-A in human cells depends on the chaperone DAXX. *Mol. Cell*, **53**, 631-644.
4. Adam S., Polo S.E. & Almouzni G. (2013) Transcription recovery after DNA damage requires chromatin priming by the H3.3 histone chaperone HIRA. *Cell*, **155**, 94-106.
5. *Ray-Gallet D., Woolfe A., Vassias I., Pellentz C., Lacoste N., Puri A., Schultz D., Pchelintsev N., Adams P., Jansen L. & Almouzni G. (2011) Dynamics of histone H3 deposition *in vivo* reveal a nucleosome gap-filling mechanism for H3.3 to maintain chromatin integrity. *Mol. Cell*, **44**, 928-941.
6. *Maison C., Bailly D., Roche D., Montes de Oca R., Probst A.V., Vassias I., Dingli F., Lombard B., Loew D., Quivy J.P. & Almouzni G. (2011) SUMOylation promotes *de novo* targeting of HP1 α to pericentric heterochromatin. *Nature Genet.*, **43**, 220-227.
7. *Dunleavy E.M., Roche D., Tagami H., Lacoste N., Ray-Gallet D., Nakamura Y., Daigo Y., Nakatani Y. & Almouzni-Pettinotti G. (2009) HJURP, a key CENP-A-partner for maintenance and deposition of CENP-A at centromeres at late telophase/G1. *Cell*, **137**, 485-497 News and Views.
8. *Groth A., Corpet A., Cook A., Roche D., Bartek J., Lukas J. & Almouzni G. (2007) Regulation of replication fork progression through histone supply/demand. *Science*, **318**, 1928-1931 Research Roundup (J. Cell Biol., 2008). Faculty 1000 Highlights Top 10.
9. Polo S., Roche D. & Almouzni G. (2006) New histone incorporation marks sites of UV-repair in human cells. *Cell*, **127**, 481-493 Cover of the issue.
10. Groth A., Ray-Gallet D., Quivy J.P., Lukas J., Bartek J. & Almouzni G. (2005) Human Asf1 regulates the flow of S-phase histones during replicational stress. *Mol. Cell*, **17**, 301-311.

10 selected Reviews/Book Chapters/ Research monographs

1. Rajewsky N *, Almouzni G *, Gorski S A. *, Aerts S, Amit I, Bertero M G., Bock C, Bredenoord A L., Cavalli G, Chiocca S, Clevers H, De Strooper B, Eggert A, Ellenberg J, Fernandez X M., Figlerowicz M, Gasser S M., Hubner N, Kjems J, Knoblich J A., Krabbe G, Lichter P, Linnarsson S, Marine J-C, Marioni J, Marti-Renom M A. , Netea M G., Nickel D, Nollmann M, Novak H R., Parkinson H, Piccolo S, Pinheiro I, Pombo A, Popp C, Reik W, Roman-Roman S, Rosenstiel P, Schultze J L., Stegle O, Tanay A, Testa G, Thanos D, Theis F J., Torres-Padilla M-E, Valencia A, Vallot C, van Oudenaarden A, Vidal M, Voet T, LifeTime Community (2020)The LifeTime initiative and the future of cell-based interceptive medicine in Europe. *Nature*. DOI [10.1038/s41586-020-2715-9](https://doi.org/10.1038/s41586-020-2715-9) (*corresponding authors equal contribution)
2. Morel D*, Jeffery D*, Aspeslagh S, Almouzni G**, Postel-Vinay S** (2020) Combining epigenetic drugs with other therapies for solid tumours - past lessons and future promise. *Nature Reviews Clinical Oncology*. Sep 30. PMID: 31570827 DOI: <https://doi.org/10.1038/s41571-019-0267-4>. Epub (2019)
3. Yadav T, Quivy JP, Almouzni G. (2018) Chromatin plasticity: A versatile landscape that underlies cell fate and identity. *Science* **361**:1332-1336. PMID: 30262494. DOI: <https://doi.org/10.1126/science.aat8950>
4. Filipescu D., Muller S. & Almouzni G. (2014) Histone H3 variants and their chaperones during development and disease : contributing to epigenetic control. *Ann. Rev. Dev. Biol.* **30**, 615-646.
5. Gurard-Levin Z.A., Quivy J.P. & Almouzni G. (2014) Histone chaperones: Assisting histone traffic and nucleosome dynamics. *Ann. Rev. Biochem.*, **83**, 487-517.
6. Szenker E., Boyarchuk E. & Almouzni G. (2013) Properties and functions of histone variants. In *Fundamentals of Chromatin*, J. Workman & S. Abmayr Eds., Springer-Verlag, pp. 375-427.
7. Soria G., Polo S. & Almouzni G. (2012) Prime, repair, restore: The active role of chromatin in the DNA damage response. *Mol. Cell*, **46**, 722-734.
8. Probst A.V., Dunleavy E. & Almouzni G. (2009) Epigenetic inheritance during the cell cycle. *Nature Rev. Mol. Cell Biol.*, **10**, 192-206.
9. Corpet A. & Almouzni G. (2009) making copies of chromatin: the challenge of nucleosomal organization and epigenetic information. *Trends Cell Biol.*, **19**, 29-41.
10. Groth A., Rocha W., Verreault A. & Almouzni G. (2007) Chromatin challenges during DNA replication and repair. *Cell*, **128**, 721-733.