

CURRICULUM VITAE			
NAME: Edith Heard	POSITION: Professor at the Collège de France , Chair of Epigenetics and Cellular Memory. Head of Genetics and Developmental Biology Department , Institut Curie, Paris, France. Group Leader “Mammalian Developmental Epigenetics Team”, Institut Curie, Paris, France.		
DATE OF BIRTH: 05/03/1965			
NATIONALITY: British			
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE / GRADE	YEAR(s)	FIELD OF STUDY
Francis Holland Girls’ School, London (UK)	4 A-levels (grade As) 2 S-levels (grade 1)	1986	Maths, Further Maths, Physics, Chemistry
Cambridge University, Emmanuel College, Cambridge (UK)	BA Cantab (First class)	1983-1986	Natural Sciences: Part II - Genetics
Imperial Cancer Research Fund, London (UK)	PhD Lon	1986-1990	Biochemistry

Professional Address:

CNRS UMR 3215 – INSERM U934 / Unité de Génétique et Biologie du Développement, Pôle de Biologie du développement et Cancer, Institut Curie, 26, rue d’Ulm, 75248 Paris Cedex 05, France
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Research Interest key words:

Epigenetics, Genetics, Development, Cancer, Nuclear Organisation, Chromatin

Research and Professional Experience:

Since April 2012 **Professor at the Collège de France** (Chair of Epigenetics and Cellular Memory)
 Since Jan 2010 **Director** of the “Genetics and Developmental Biology Unit” UMR 3215-U934, Curie Institute, Paris, France
 2008-2010 **Co-Director** with Prof. Spyros Artavanis Tsakonas, of the “Genetics and Developmental Biology Unit” UMR 3215-U934, Curie Institute, Paris, France
 2006 - 2008 **Senior Group Leader**, Mammalian Developmental Epigenetics team, UMR218, Curie Institute, Paris (France). Unit of Dr. G. Almouzni.
 2001 - 2006 **CNRS ATIPE / Junior Group leader**, UMR218, Curie Institute, Paris (France). Unit of Dr. G. Almouzni.
 2000 - 2001 **Visiting Scientist**, Cold Spring Harbor Laboratory (NY, USA). Lab. of Dr. D. Spector.
 1993 - 2000 **Senior research scientist**, CNRS, URA 1947, Pasteur Institute, Paris (France), Lab. of Dr. P. Avner,
 1990 - 1993 **Postdoctoral Fellow** (HFSP and Wellcome Trust funding), URA 1968, Pasteur Institute, Paris (France). Lab. of Dr. P. Avner.
 1986 - 1990 **PhD thesis**, (ICRF Bursary Award) Imperial Cancer Research Fund, London, (UK). Lab. of Dr. M. Fried.

Distinctions and Awards :

- **Prix de la Fondation Allianz Institut de France** (2013)
- **Elected Fellow of the Royal Society** (2013)
- **Science Heirloom for Women in Science** (2012)
- **Grand Prix de la FRM** (2011)
- **Prix Jean Hamburger de la Ville de Paris** (2009)
- **CNRS Silver Medal (“Medaille d’Argent” du CNRS)** (2008)
- The **“Otto Mangold” prize**, German Society for Developmental Biology (2007)
- First prize of the **"Fondation Schlumberger pour l’Education et la Recherche"** (2005)
- Elected as **EMBO member** (2005)
- New Emerging Team (**NET**) by the EU **Epigenome Network of Excellence** (2004)
- **CNRS ATIFE** (Young Investigator funding) (2001-2004); **ATIP plus** (2004-2006)
- **NATO award** (visiting scientist at Cold Spring Harbor Laboratory, USA) (2000-2001)
- **Thoday Prize in Genetics (Cambridge University)** (1986)
- **Emmanuel College Prize (Cambridge University)** (1986)
- **Emmanuel College Scholarship (Cambridge University)** (1986)

Scientific responsibilities:

- **Coordinator** of the Laboratory of Excellence (LABEX) **“DEEP”** together with UMR 3664 (G. Almouzni) (2012-2020)
- **Director** of the **Unit of Genetics and Developmental Biology** (UMR3215/U934), created at the Curie Institute, (co-director with Prof S Artavanis-Tsakonas from September 2008 – 2010; director since 2010).
- **Principal Investigator** of the **“Mammalian developmental epigenetics team”** since September 200

Team Funding and Contracts (current):

- Labelisation **“La Ligue”** (2012-2015)
- ERC Advanced Investigator award (2010-2015)
- European FP7 Integrated Project **“Syboss”** (2010- 2014)
- European FP7 Integrated Project **“MODHEP”** (2010- 2014)
- European FP7 Network of Excellence **“Epigenesys”** (2010- 2014)

KEY PUBLICATIONS FROM PAST 10 YEARS

1. **Giorgetti, L., Galupa, R., Nora, EP., Lam, F., Piolot, F., Dekker, J., Tiana, G*.** and **Heard, E*.** (2014) Predictive polymer modeling reveals coupled fluctuations in chromosome conformation and transcription. *Cell*, 157: 950–963.
2. **Gendrel, A-V., Attia, M., Chen, C., Diabanguouaya, P., Servant, N., Barillot, E.** and **Heard, E.** (2014) The developmental dynamics and disease potential of random monoallelic gene expression. *Developmental Cell*, 28: 366–380.
3. **Rocha, S., Boeva, V., Escamilla, M., Ancelin, K., Granier, C., Matias, N.R., Sanulli, S., Chow, J., Schulz, E., Picard, C., Kaneko, S., Helin, K., Reinberg, D., Stewart, A.F., Wutz, A., Margueron, R*.** and **Heard, E*.** (2014) Jarid2 is implicated in the initial Xist-induced targeting of PRC2 to the inactive X chromosome. *Molecular Cell*, 53:301-16
4. **Schulz, E., Meisig, J., Nakamura, T., Okamoto, I., Sieber, A., Picard, C., Borensztein, M., Saitou, M., Bluthgen, N.** and **Heard E.** (2014) The two active X chromosomes in female embryonic stem cells block exit from the pluripotent state by modulating the ES cell signaling network. *Cell Stem Cell*, 14: 203-16.

5. **Corbel C, Diabangouaya P, Gendrel AV, Chow JC, Heard E.** (2013) Unusual chromatin status and organization of the inactive X chromosome in murine trophoblast giant cells. *Development* 140: 861-872.
6. **Nora E.P., Lajoie B., Schulz E.G., Giorgetti L., Okamoto I., Servant N. Piolot T., van Berkum N.L., Meisig J., Sedat J., Barillot E., Blüthgen N., Dekker J.* and Heard E*.** (2012) Spatial partitioning of the regulatory landscape of the *X-inactivation center*. *Nature* 485:381-385.
7. **Masui O., Bonnet I., Le Baccon P., Brito I., Pollex T., Murphy N., Hupé P., Barillot E., Belmont A. and Heard E.** (2011) Live cell chromosome dynamics and outcome of X-chromosome pairing events during ES cell differentiation. *Cell* 145: 447-458.
8. **Okamoto I., Patrat C., Thepot D., Peynot,N., Diabangouya, P., Fauque P., Daniel N., Wolf JP., Renard JP., Duranthon V* and Heard E*.** (2011) Evolutionary Diversity of X-chromosome Inactivation in Mammals. *Nature* 472 : 370-374
*co-corresponding authors
9. **Chow, J., Ciaudo, C., Fazzari, M., Mise, N., Servant, N., Glass, J.L., Attreed, M., Avner, P., Wutz, A, Barillot, E., Grealley, J.M., Voinnet, O., Heard, E.** (2010) LINE1 activity in facultative heterochromatin formation during X-chromosome inactivation. *Cell* 141: 956–969.
10. **Patrat, C., Okamoto, I., Diabangouya, P., Vialon, V., Le Baccon, P., Chow, J. and Heard E.** (2009) Dynamic changes in paternal X-chromosome activity during imprinted X inactivation in mice *Proc Natl Acad Sci U S A.* 106: 5198-5203.
11. **Augui, S., Filion, G., Huart, S., Guggiari, M., Maresca, M., Stewart, F. and Heard, E.** (2007) Sensing X-chromosome pairs prior to X inactivation via a novel X-pairing region of the Xic . *Science* 318, 1632-1636.
12. Vincent-Salomon, A.* , **Ganem-Elbaz, C.***, Manié, E.* , Raynal, V., Sastre-Garou, X., Stoppa-Lyonnet, D., Stern, M-H. and **Heard, E.** (2007) XIST RNA coating and genetic instability of the X chromosome in *BRCA1* breast tumors. *Cancer Research* 67: 5134-5140 (* equal contribution)
13. **Chaumeil, J., Le Baccon, P., Wutz, A. and Heard E.** (2006) A novel role for Xist RNA in the formation of a repressive nuclear compartment into which genes are recruited when silenced. *Genes and Development* 20: 2223-2237.
14. Bacher, C., **Guggiari, M.**, Brors, B., **Augui, S.**, Avner, P., Eils, R. and **Heard, E.** (2006) Transient colocalization of X-inactivation centres accompanies the initiation of X inactivation. *Nature Cell Biology* 8: 293-239.
15. **Okamoto, I., Arnaud, D., Otte, AP, Disteché, C., Avner, P. and Heard E.** (2005) Evidence for de novo imprinted X-chromosome inactivation independent of meiotic inactivation in mice. *Nature* 438: 369-373.
16. **Okamoto, I., Otte, A., Allis, C. D., Reinberg, D. and Heard, E.** (2004) Epigenetic dynamics of imprinted X inactivation during early mouse development. *Science* **303**: 644-649.