

# Keynote seminar "Biologie & Clinique"

## Professor Edith Heard

Curie Institute, Paris, France

Par ses travaux menés au cours des vingt dernières années, Edith Heard a permis de nombreuses avancées conceptuelles dans le domaine de l'inactivation du chromosome X et de l'épigénétique développementale ; l'équipe d'Edith Heard cherche également à mieux comprendre la dérégulation épigénétique qui se produit dans les cas de cancers, et son lien avec les mutations génétiques.

## X-chromosome inactivation in development and disease

Invitation : Christophe Ginestier - Centre de Recherche en Cancérologie de Marseille

Mardi 3 Avril 2018 à 11h - *Accès libre*

Salle de Conférence du Centre d'Information, de Prévention et de Consultation en Cancérologie de l'Institut Paoli-Calmettes, entrée et parking 15 Bd Leï Roure - 13009 Marseille

### Renseignements

Secrétariat du Centre de Recherche en Cancérologie de Marseille UMR 1068  
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Centre de Recherche en Cancérologie de Marseille

Unité Mixte de Recherche

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## X-chromosome inactivation in development and disease



### Professor Edith Heard

Curie Institute, Paris, France

Over the past decade, Edith Heard has contributed many conceptual advances in the area of X-chromosome inactivation and developmental epigenetics. In addition to her work on the fundamental aspects of epigenetics, Edith Heard is actively involved in the analysis of epigenetic abnormalities in patients with breast cancer and is seeking to identify useful biomarkers for prognosis and diagnosis as well as treatment strategies using "epi-drugs" capable of reversing genetic aberrations.

Retour  
Cliquez Ici

#### Selected publications:

**Genetic and epigenetic features direct differential efficiency of Xist-mediated silencing at X-chromosomal and autosomal locations.**

Loda A, Brandsma JH, Vassilev I, Servant N, Loos F, Amirnasr A, Splinter E, Barillot E, Poot RA, [Heard E](#), Gribnau J. *Nat Commun.* 2017 Sep 25;8(1):690.

**Novel players in X inactivation: insights into Xist-mediated gene silencing and chromosome conformation.**

da Rocha ST, [Heard E](#). *Nat Struct Mol Biol.* 2017 Mar 3;24(3):197-204.

**Xist-dependent imprinted X inactivation and the early developmental consequences of its failure.**

Borensztein M, Syx L, Ancelin K, Diabangouaya P, Picard C, Liu T, Liang JB, Vassilev I, Galupa R, Servant N, Barillot E, Surani A, Chen CJ, [Heard E](#). *Nat Struct Mol Biol.* 2017 Mar;24(3):226-233.

**Landscape of monoallelic DNA accessibility in mouse embryonic stem cells and neural progenitor cells.**

Xu J, Carter AC, Gendrel AV, Attia M, Loftus J, Greenleaf WJ, Tibshirani R, [Heard E](#), Chang HY. *Nat Genet.* 2017 Mar;49(3):377-386.

**Jarid2 binds mono-ubiquitylated H2A lysine 119 to mediate crosstalk between Polycomb complexes PRC1 and PRC2.**

Cooper S, Grijzenhout A, Underwood E, Ancelin K, Zhang T, Nesterova TB, Anil-Kirmizitas B, Bassett A, Kooistra SM, Agger K, Helin K, [Heard E](#), Brockdorff N. *Nat Commun.* 2016 Nov 28;7:13661.

**3D solutions to complex gene regulation.**

[Heard E](#). *Nat Rev Mol Cell Biol.* 2016 Nov 21;17(12):739.

**LINE-1 Activity in Facultative Heterochromatin Formation during X Chromosome Inactivation.**

Chow JC, Ciaudo C, Fazzari MJ, Mise N, Servant N, Glass JL, Attreed M, Avner P, Wutz A, Barillot E, Grealley JM, Voinnet O, [Heard E](#). *Cell.* 2016 Jul 28;166(3):782.

**Structural organization of the inactive X chromosome in the mouse.**

Giorgetti L, Lajoie BR, Carter AC, Attia M, Zhan Y, Xu J, Chen CJ, Kaplan N, Chang HY, [Heard E](#), Dekker J. *Nature.* 2016 Jul 28;535(7613):575-9.

**Systematic discovery of Xist RNA binding proteins.** Chu C, Zhang QC, da Rocha ST, Flynn RA, Bharadwaj M, Calabrese JM, Magnuson T, [Heard E](#), Chang HY. *Cell.* 2015 Apr 9;161(2):404-16.

**The inactive X chromosome is epigenetically unstable and transcriptionally labile in breast cancer.**

Chaligné R, Popova T, Mendoza-Parra MA, Saleem MA, Gentien D, Ban K, Piolot T, Leroy O, Mariani O, Gronemeyer H, Vincent-Salomon A, Stern MH, [Heard E](#). *Genome Res.* 2015 Apr;25(4):488-503.