



*Unit Director*  
Pierre Leopold

The Genetics and Developmental Biology Department (or Unit) of the Institut Curie was inaugurated in October 2008, with the support of CNRS and Inserm and in partnership with University Paris 6 (UPMC). The Unit currently consists of nine internationally competitive research teams.

The goal of this Unit is based on the simple, but fundamental, concept that an understanding of normal developmental regulation should provide us with a better understanding of the basis of human pathology. During development, cells have to integrate different types of molecular and physical information to proliferate, and to make decisions such as whether to maintain pluripotency or trigger differentiation and acquire specialisation for tissue-specific functions.

Cancerisation can result from perturbations at each of these levels and is linked to misregulation of developmental signalling pathways, uncontrolled cellular proliferation and a loss of cellular identity.

## Key publications

### Year of publication 2018

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Żylicz Jan Jakub, Bousard Aurélie, Žumer Kristina, Dossin François, Mohammad Eusra, Teixeira da Rocha Simão, Schwalb Björn, Syx Laurène, Dingli Florent, Loew Damarys, Cramer Patrick, Heard Edith (2018 Dec 21)

**The Implication of Early Chromatin Changes in X Chromosome Inactivation**

*Cell* : 176 : 1-16 : [DOI : 10.1016/j.cell.2018.11.041](https://doi.org/10.1016/j.cell.2018.11.041)

Eleonora Meschi, Pierre Léopold, Renald Delanoue (2018 Dec 10)

**An EGF-Responsive Neural Circuit Couples Insulin Secretion with Nutrition in *Drosophila*.**

*Developmental cell* : [DOI : 10.1016/j.devcel.2018.11.029](https://doi.org/10.1016/j.devcel.2018.11.029)

Anna M Lilja, Veronica Rodilla, Mathilde Huyghe, Edouard Hannezo, Camille Landragin, Olivier Renaud, Olivier Leroy, Steffen Rulands, Benjamin D Simons, Silvia Fre (2018 May 23)

**Clonal analysis of Notch1-expressing cells reveals the existence of unipotent stem cells that retain long-term plasticity in the embryonic mammary gland.**

*Nature cell biology* : [DOI : 10.1038/s41556-018-0108-1](https://doi.org/10.1038/s41556-018-0108-1)

MaryJane Shimell, Xueyang Pan, Francisco A Martin, Arpan C Ghosh, Pierre Leopold, Michael B O'Connor, Nuria M Romero (2018 Feb 23)

**Prothoracicotropic hormone modulates environmental adaptive plasticity through the control of developmental timing.**

*Development (Cambridge, England)* : [DOI : dev159699](https://doi.org/10.1016/j.dev.2018.02.009)

**Year of publication 2017**

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Louis Gervais, Allison Bardin (2017 Jun 30)

**Tissue homeostasis and aging: new insight from the Fly intestine**

*Current Opinion in Cell Biology* : [DOI : 10.1016/j.ceb.2017.06.005](https://doi.org/10.1016/j.ceb.2017.06.005)

Jérémy Sallé, Louis Gervais, Benjamin Boumard, Marine Stefanutti, Katarzyna Siudeja, Allison J. Bardin (2017 May 22)

**Intrinsic regulation of enteroendocrine fate by Numb**

*EMBO Journal* : [DOI : 10.15252/emboj.201695622](https://doi.org/10.15252/emboj.201695622)