

## Curriculum vitae (updated December 2017)

**Pascale Lesage** ([Pascale.lesage@inserm.fr](mailto:Pascale.lesage@inserm.fr))

Research Director at CNRS (DR2)  
Inserm U944, CNRS/P7 UMR7212

### ACADEMIC AND PROFESSIONAL CAREER

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2011-present **Scientific Director DR2** (CNRS), team “Dynamic of retroviruses and retrotransposons” St Louis Hospital-Hematology Institute- Paris Diderot University

2008-2011 **Senior Scientist CR1** (CNRS), team “Regulation of Ty1 retrotransposition”  
St Louis Hospital - Hematology Institute- Paris Diderot University  
**PI on the axis:** “Control of Ty1 retrotransposition in yeast”

2004 **Degree to supervise research (HDR)** University of Paris-Sud

1995 – 2008 **Research scientist Junior CR2 and Senior CR1** (CNRS)  
Institut de Biologie Physico-Chimique (IBPC), CNRS Paris  
**PI on the axis:** “Control of Ty1 retrotransposition in yeast” in the team of M. Springer

1992 – 1995 **Postdoc fellow**, laboratory of Pr. Marian Carlson  
Columbia University, Dept. of Genetics and Development, New York, USA

1987 – 1991 **PhD in Life Sciences**, University of Paris Sud, team of Mathias Springer, IBPC, awarded July 05<sup>th</sup> 1991

### TRAINING OF HUMAN RESOURCES

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6 PhD students, 3 post-doc fellows, 4 technicians

### GRANTED RESEARCH IN THE LAST 5 YEARS

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2016 Cancéropôle Ile-de-France  
2016-2017 Fondation ARC  
2014-2018 ANR NiCiTy  
2018-2021 ANR INstruc  
2016-2018 Labex Who Am I (collaborative project)

### Prize

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2016 Prix Diderot Innovation (Paris Diderot University)  
2016 Prix Dagnan-Bouveret (French Academy of Sciences)

### SPEAKER IN INTERNATIONAL CONFERENCES IN THE LAST FIVE YEARS

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2017 EMBO symposium “The Mobile Genome: Genetic and Physiological Impacts of Transposable Elements”, Heidelberg, GR

2017 6th International Conference on Retroviral Integration, Bordeaux, FR

2015 EMBO symposium “The Mobile Genome: Genetic and Physiological Impacts of Transposable Elements”, Heidelberg, GR

2015 EMBO workshop on Nuclear Structure and Dynamics, Isle sur Sorgue, FR

2014 5th International Conference on Retroviral Integration, Asilomar, USA

2014 Keystone meeting on Mobile DNA, Santa Fe, USA

2012 International Congress on Transposable Elements (ICTE 2012), Saint Malo, FR

### PATENT

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“Polypeptides for engineering integrase chimeric proteins and their use in gene therapy”  
February 12<sup>th</sup> 2015: European patent (EP15305217.0)  
February 12<sup>th</sup> 2016: International extension (PCT/EP2016/053008)

### RESEARCH MANAGEMENT EXPERIENCE IN THE LAST 5 YEARS

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2012 and 2016: co-organizer: “International congress on Transposable Elements (ICTE)” Saint-Malo  
2006-2016: organizer: “Mob’Ile de France” 4-6 meetings/year, half a day

### TRANSVERSAL TRAINING AND RESPONSIBILITIES

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**Jury member** for 18 PhD or HDR committees and one engineer committee of the EPHE  
**Teaching** in Magister & Master courses (ENS and Universities René-Descartes, Paris-Sud & Paris Diderot)

### PARTICIPATION IN SCIENTIFIC SOCIETIES AND EVALUATION COMMITTEES

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Since 2017: **Scientific committee** of Institut Universitaire d’Hématologie

Since 2016: Institute committee of Institut Universitaire d'Hématologie

Until 2016 : Board of Directors of the SFBBM (Société Française de Biochimie et Biologie Moléculaire)

GDR "Les éléments génétiques mobiles: du mécanisme aux populations, une approche intégrative (EGM)"

Editorial board of Mobile DNA

#### SCIENCE AND SOCIETIES

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**Executive committee** of the Association L'arbre des connaissances, an association funded by researchers in 2004 to promote dialog between producers of science and society

#### MAJOR PUBLICATIONS

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1. Luciano P, Jeon J, El-Kaoutari A, Challal D, Bonnet A, Barucco M, Candelli T, Jourquin F, Lesage P, Kim J, Libri D, Géli V. *Binding to RNA regulates Set1 function*. *Cell Discov.* 2017 Oct 24;3:17040. doi: 10.1038/celldisc.2017.40. eCollection 2017.
2. Sultana T, Zamborlini A, Cristofari G, Lesage P. 2017. Integration site selection by retroviruses and transposable elements in eukaryotes. *Nat Rev Genet.* 2017. 18(5): 292-308. **Review.**
3. Bridier-Nahmias A, Tchalikian-Cosson A, Baller JA, Menouni R, Fayol H, Flores A, Saïb A, Werner M, Voytas DF, Lesage P. (2015) Retrotransposons. An RNA polymerase III subunit determines sites of retrotransposon integration. *Science.* 348(6234):585-588.
4. Curcio MJ, Lutz S, Lesage P (2015) The Ty1 LTR-Retrotransposon of Budding Yeast, *Saccharomyces cerevisiae*. *Microbiol Spectr.* 2015 Apr;3(2). **Mobile DNA III Book Chapter.**
5. Bridier-Nahmias A, Lesage P. (2012) Two large-scale analyses of Ty1 LTR-retrotransposon *de novo* insertion events indicate that Ty1 targets asymmetric nucleosomal DNA segments near the H2A/H2B interface in tRNA hotspots. *Mobile DNA.* 3(1):22-25. **Commentary.**
6. Servant G., Pinson B., Tchalikian A., Couplier F., Lemoine S., Pennetier, C. Bridier-Nahmias, A. Todeschini AL., Fayol H., Daignan-Fornier B. Lesage P. (2012) Tye7 regulates yeast Ty1 retrotransposon sense and antisense transcription in response to adenylc nucleotides stress. *Nucleic Acid Res,* 40, 5271-5282.
7. Servant G., Pennetier C and Lesage P. (2008) Remodeling yeast genes transcription by activating Ty1 LTR-retrotransposon under severe adenine deficiency. *Mol. Cell. Biol.* 28. 5543- 5554.
8. Todeschini, AL., Morillon, A. Springer, M. & Lesage, P. (2005) Severe adenine starvation activates Ty1 transcription and retrotransposition in *S. cerevisiae*. *Mol. Cell. Biol.* 25, 7459-7472.
9. Lesage, P. and Todeschini, AL. (2005). Happy together: The life and times of Ty retrotransposons and their host. *Cytogenet. and Genome Res. Special Issue on Transposable Elements and Genome evolution,* 110, 70-90. **Review.**
10. Sacerdot, C., Mercier, G. Todeschini, AL., Dutreix, M., Springer, M. & Lesage P. (2005) Impact of ionizing radiation on the life cycle of *S. cerevisiae* Ty1 retrotransposon. *Yeast* 22, 441-455.
11. Morillon, A., Bénard, L., Springer, M. & Lesage, P. (2002) Differential effect of chromatin and Gcn4 on the fifty-fold range of expression among individual Yeast Ty1 retrotransposons. *Mol. Cell. Biol.* 22, 2078-2088.
12. Morillon A., Springer M. & Lesage P. (2000) Activation of the Kss1 invasive/filamentous growth pathway induces Ty1 transcription and transposition in *S. cerevisiae*. *Mol. Cell. Biol.* 20, 5766- 5776.