

## Thomas LECUIT

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Date of birth: 4<sup>th</sup> October 1971

Married: 4 children

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### **1. Education:**

2003 Thesis Habilitation, Aix Marseille Université  
1998 PhD, University of Paris 6  
1994 MSc, University of Paris 6  
1991 Ecole Normale Supérieure (ENS), Paris (Ulm)  
1990-91 Classes préparatoires MathSup/Spé Bio (Lycée Sainte Geneviève)

### **2. Research and Professional experience:**

2017- Professor, Collège de France. Chair: Dynamics of living systems  
2010-2016 Research Director (DR1) CNRS.  
2006-2010 Research Director (DR2) CNRS.  
2001-2006 Research Associate (CR1) CNRS.  
2011 Visiting Professor, National Centre for Biological Sciences, Bangalore, India.  
1998-2001 Postdoctoral Fellow, Princeton University, USA, with Pr. E. Wieschaus.  
1995-1998 PhD thesis, EMBL, Heidelberg, Germany, with Dr. S. Cohen.  
1994-1995 Master thesis, Rockefeller University, New York, USA, with Pr. C. Desplan.

### **3. Scientific Responsibilities:**

2001-present Principal Investigator of the 'Tissue architecture and plasticity' team, IBDM, Marseille, France.  
URL: <http://www.ibdm.univ-mrs.fr/equipe/cell-polarity-and-tissue-morphogenesis/>  
2012-present Director of Labex INFORM ('Information flow at the membrane') research network, Marseille, France.  
URL: <http://labex-inform.com>  
2014-present Director of LIA (International Associated Laboratories) of CNRS, between IBDM (Marseille) and NCBS (Bangalore).  
2017-present Director of Turing Centre for Living Systems (CenTuri), in Marseille, an interdisciplinary program to study the complexity of biological systems between biologists, physicists, computational scientists and mathematicians.

### **4. Awards and Prizes**

2015 Life Science Prize of Bettencourt Schueller Foundation  
2015: Silver Medal of CNRS  
2014: Elected Member of French Academy of Sciences.  
2014: Elected Member of Academia Europaea.  
2012: Laureate of ERC Advanced Grant.  
2011: Grand Prix Victor Noury of Académie des Sciences.  
2009: Prix Antoine Lacassagne of Collège de France.  
2009: Elected Member of EMBO.  
2008: Laureate of HFSP Programme Grant.  
2007: Early Career Award of European Life Science Organization (ELSO).  
2007: Paoletti Prize of CNRS.

2006: Bronze Medal of CNRS.  
2004: Laureate of EMBO Young Investigator Programme.  
2003: Laureate of Foundation Schlumberger for Education and Research.  
1998: HFSP Long-term Fellowship.  
1995: EMBO PhD Fellowship.

### **5. Editorial activities**

Editor of *Development* (since 2008).  
Board of Reviewing Editors (BoRE) of *Science* (since 2014)

Editorial Board: *Developmental Dynamics* (since 2004-2010)  
*Cell adhesion and migration* (since 2007)

Faculty member of Faculty of 1000 : Developmental Biology section : Morphogenesis and Cell biology.

### **6. Reviewing activities**

-**Journals:** mostly *Nature*, *Science*, *Cell*, *Nature Cell Biology*, *Developmental Cell*, *Current Biology*, *Journal of Cell Biology* and *Nature Reviews* journals.

#### **-Grant agencies:**

*International:*

ERC, HFSP, MRC (UK), Wellcome Trust (UK), BBSRC (UK), NSF (USA), Netherlands Org. for Health Research and Development, and in Singapore, Israel, Switzerland, Italy.

*National:*

ANR (Agence Nationale de la Recherche), ARC (Association pour la recherche contre le cancer), FRM (Fondation Recherche Médicale).

Reviewer of EMBO and HFSP short and long term fellowships.

Consultant for AXA Research Fund: evaluation of PhD, postdoctoral fellowships and 'chairs' in 2008-2013.

-**Ad hoc external review:** tenure (USA, Canada), renewal of contract (Japan, RIKEN), international prizes.

### **7. Scientific committees**

Panel member: EMBO Course Committee, starting 2017.

Panel chair, Call 'Physique, Chimie, Biologie' of Fondation pour la Recherche Médicale, 2015.

Panel member, European Research Council, ERC Starting Grant, LS3 'Cell and Developmental Biology', 2011, 2013, 2015, 2017.

Panel member, ATIP/AVENIR (CNRS-INSERM), LS3 'Cell and Developmental Biology' in 2009,10,12.

Panel chair, ATIP/AVENIR LS3 'Cell and Developmental Biology' in 2014.

Panel member, ANR (SVSE2), in 2013.

Panel member, Swiss National Science Foundation, Systems Biology, since 2013.

Panel member, Interface Research Grant Physics-Chemistry-Biology at CNRS in 2007-2008.

Referee of PhD and Thesis Habilitation (HDR) of >10 PhDs and HDRs in France.

### **8. Alumni:**

Fanny Pilot-Stork (Assistant Prof. Maison-Alfort)

Anne Pelissier-Monier (Assistant Prof. Toulouse)

Claire Bertet (Research Associate. CNRS, Marseille)

Matthieu Cavey (Assistant Prof. Marseille)

Véronique Morel (Research Associate, CNRS, Lyon)

Romain Levayer (Research Associate, PI, Institut Pasteur)  
Matteo Rauzi (Research Associate, PI, iBV, Nice)  
Loic Le Goff (Research Associate CNRS, PI, Fresnel Institute, Marseille)  
Manos Mavrikis (Research Associate CNRS, PI, Fresnel Institute, Marseille)  
Bernhard Hampoelz (Postdoc, EMBL, Heidelberg)  
Charlène Guillot (Postdoc, Harvard Medical School)  
Akankshi Munjal (Postdoc, Harvard Medical School)

## **9. Conferences and Lectures**

### **Conference Organization:**

- EMBO Workshop 'Epithelial polarity in development and disease' march 2004, Carry le Rouet (with K. Mostov and N. Perrimon),
- EMBO Lecture course 'Mesoscopic origins of cell behavior during morphogenesis', april 2012, in Cargese, France (with PF Lenne and Ed Munro).
- Santa Barbara Advanced School of Quantitative Biology, 22 july- 24 august 2013, KITP, Santa Barbara (Course Director with Boris Shraiman, Ewa Paluch and Joel Rothman)
- 1st Conference on Quantitative Biology of Signalling. Cargese, October 21-25 2013 (with HT He and Annemarie Lellouch)
- 2nd Conference on Quantitative Biology of Signalling. Cargese, 28 Sept-2 Oct 2015 (with JP Gorvel)
  
- Society of Developmental Biology Meeting in Snowbird, Utah, US, 9-13 july 2015 (Lee Niswander, President SDB, Andrew Groover, Ruth Lehmann and Athula Wikramanayake)

Programme committee, Meeting of Japanese-French Societies of Developmental Biology 'Frontiers in Developmental Biology' in Giens, sept 2008.

### **Session chair:**

American Society of Cell Biology (ASCB) meeting (2005, 2011), ELSO Conference (2005), EMBO Conference (2012) and European Drosophila Research Conference (2008).

### **Plenary and named Lectures:**

- Keynote Lecture: Dutch Developmental Biology Meeting, Hutrecht, April 2016.
- Frank Pepe Lecture in Cell Biology, University of Pennsylvania, March 2015.
- EMBO Keynote Lecture: Australian Developmental Biology Workshop, Nov 2014.
- Mill Hill Lecture, NIMR, London, UK, Feb 2014.
- Katsuma Dan Lecture, Joint Physiology and Embryology courses. WoodsHole, USA, July 2010.
- EDRC (European Drosophila Research Conference), in Nice, 18-21 Nov 2009.
- 48th annual Drosophila Research Conference, Philadelphia, March 7-11, 2007
- ELSO (European Life Science Organization) Conference, 2 Sept 2007 in Dresden.

### **Seminar and Conference Invitations:**

I have regular invitations to conferences and seminars/lectures since 2001 in Europe, North America (USA and Canada), Asia (Japan, India, Singapore, China, Australia).

### **Seminar invitations**

Kings College, London, (inv. Jonathan Clarck), 8 dec 2016  
Lisbonne, iMM, (inv. Claudio Franco), 30 mai 2016  
Clermond Ferrand (inv. V Mirouse), 12 mai 2016  
Hong Kong University for Science and Technology (inv. Yan Yan), 12 Nov 2015.  
Université Libre de Bruxelles, IRIBHM, Bruxelles (inv. PhD programme), 25 Juin 2015.  
Stowers Institute, Kansas City (inv. Rong Li & M. Gibson), 11 Mars 2015.  
Dept. of Cell & Developmental Biology, UPenn, Philadelphia (inv. A Ghabrial),  
"Frank Pepe Lecture in Cell Biology", 23 Mars 2015.

Weizmann Institute of Science, Rehovot, Tel Aviv (inv. Benny Shilo), 15 Avril 2015.  
Univ. of British Columbia, Vancouver, (inv. G Tanentzapf), 16 Juillet 2014.  
LMCB, MRC, London (inv. E. Paluch), 7 Avril 2014.  
Gulbenkian Institute, Lisbonne (inv. F. Janody), 14 Mars 2014.  
MillHill, NIMR, London (inv. David Wilkinson), "MillHill Lecture", 5 Fév 2014.  
Toulouse, LBCMCP (inv. M. Suzanne), 11 Jan 2013.  
Singapore, Mechano Biology Institute, 3 lectures les 5, 6 et 8 Mars 2013.  
Rennes (inv. G. Michaux), 15 Mars 2013.  
Basel, BioZentrum (inv. Markus Affolter), 8 Mai 2013.  
Dundee (inv. Kees Weijer), 30 Mai, 2013.  
Copenhagen, DanStem (inv. Anne Grapin), 11 Sept 2013.  
Heidelberg DKFZ (inv. Bruce Edgar), 10 Oct 2013.  
Nice (inv. Pierre Leopold), 8 Nov 2013.  
Bangalore NCBS (inv. S. Mayor), 14 Nov 2013.  
Montréal, IRIC, Université de Montréal (inv. Sébastien Carreno), 16 Déc 2013.  
Paris, Institut Jacques Monod (inv. A. Guichet), 19 Jan 2012.  
Vienna, Austria, IST (inv. CP Heisenberg), 19 Mars 2012.  
Utrecht, Hubrecht Institute (inv. J de Rooij), 12 Avril 2012.  
Beijing, NIBS (inv. W. He), 23 Mai 2012.  
Harvard Univ. Dept of Systems Biology (inv. R. Kishony), 14 Juin 2012.  
Cambridge, Development 25 years Anniversary Symposium, 25 Oct 2012.  
Chicago, Univ of Chicago (inv. Ed Munro), 8 Nov 2012.  
Madrid, CBM (inv. Fernando Martin-Belmonte), 23 Nov 2012.  
Geneva, Switzerland (inv. M. Gonzalez Gaitan), 18 Jan 2011.  
Bangalore, NCBS, Public Lecture et 3 Research Lectures (inv. S. Mayor), Sep et Oct 2010.  
IGBMC, Strasbourg (inv. O. Pourquié), 25 Juin 2010.  
IGH, Montpellier (inv. G. Cavalli), 26 Mai 2010.  
New York, NYU (inv. C. Desplan), 24 Mars 2010.  
Univ Vanderbilt, Nashville (inv. L. Solnica Krezel), 23 Mars 2010.  
ETH Zürich (inv. E. Hafen, Systems X Lecture), 8 Mars 2010.  
Dept of Genetics, Cambridge (inv. A. Martinez Arias), 25 Fév2010.  
IFOM Milano (inv. E. Dejana, Th. Vacarri), 22 Jan 2010.  
LMB, Cambridge (inv. M. Freeman/LM Escudero), 19 Fév 2009.  
LMCB UCL (inv. Franck Pichaud), London 17 Fév 2009.  
Institut Curie, Paris (inv. Aurélien Roux), 1 Avril 2009.  
IGBMC, Strasbourg (inv. Dino Moras), 22 Mai 2008.  
University of Manchester (inv. N. Papalopoulou), 13-14 Mai 2008.  
Stanford University (inv. Jeff Axelrod), 29 Jan 2008.  
UCSF, San Francisco (inv. Pat O'Farrell), 28 Jan 2008.  
Skirball Institute, New York (inv. Ruth Lehmann), 7 Déc 2007.  
University of Chapel Hill (inv. Mark Peifer), 29 Nov 2007.  
TLL, Singapore (Inv. Steve Cohen), 25 Oct 2007.  
Institut Pasteur, Paris (inv. Pascale Cossart), 22 oct 2007.  
NIH, Bethesda (inv. J. Lippincott Schwartz), 1 Juillet 2007.  
Yokohama University (inv. Shigeo Ohno), Mai 2007.  
Leuven (inv. Bassem Hassan), 28 Nov 2006.  
IGC-Gulbenkian (inv. Elio Sucena), 31 Mars 2006.  
Nice University (inv. Pierre Leopold), 13 Jan 2006.  
Institut Curie, Paris (inv. Giovanni Capello), 30 Nov 2005.

NIG, Mishima (Japon) (inv. Yash Hiromi), 25 Oct 2005.  
Kyoto University (Japon) (inv. Tadashi Uemura), 21 Oct 2005.  
RIKEN, Kobe (Japon) (inv. Shigeo Hayashi), 20 Oct 2005.  
IBMB, Barcelona (Espagne), (inv. E. Martin-Blanco), 10 Juin 2005.  
ISREC, Lausanne (Suisse), (inv. Pierre Gönczy), 18 Mai 2005.  
McGill University (Montreal), (inv. Frieder Schoeck), 31 Jan 2005.  
IMBA, Vienna (Autriche) (inv. Juergen Knoblich), 25 Jan 2005.  
NCBS, Bangalore (Inde) (inv. VijayRaghavan), 14 Déc 2004.  
Institut Paoli Calmette, Marseille (inv. JP Borg), 30 Nov 2004.  
LMCB, Kings College London (inv. F. Pichaud), 15 Nov 2004.  
Max Plank Institut Dresden (inv. Marcos Gonzalez Gaitan), 6 Mars 2004.  
New York, NYU, Etats-Unis (inv. Claude Desplan), 9 Fév 2004.  
Stowers Institute, Kansas City, Etats-Unis (inv. O. Pourquié), 5 Fév 2004.  
Lab. de Spectrométrie Physique, Univ. J. Fourier, Grenoble (inv. F. Graner), 15 Sep 2003.  
Institut Pasteur, Paris (inv. Christine Petit), 1 Juillet 2003.  
MRC, Cambridge UK (inv. P. Lawrence), 13 Mars 2003.  
Department of Genetics (inv. A. Martinez-Arias), 14 Mars 2003.

## **Conference Invitations**

### **2016**

Louis Jeantet Symposium : Frontiers of Developmental Biology, Genève, 12 Octobre 2016  
MBI-Biophysical Society Conference, Mechanobiology of disease, Singapore 27-30 September 2016  
Santa Cruz Developmental Biology Meeting, 13-16 Aout 2016  
KITP Workshop : Mechanics and Mechanisms of Morphogenesis, Santa Barbara, 25-31 Aout 2016  
EMBO Drosophila research conference, Crete, 20-25 juin 2016  
Dutch Developmental Biology Meeting, Keynote Seminar, Utrecht, 20 avril 2016

### **2015 :**

NYU Abu Dhabi Conference 16-19 Fév 2015.  
Society of Developmental Biology Meeting in Snowbird, Utah, US, 9-13 Juillet 2015.  
Physics of Living Matter, Cambridge, 24-25 Sept 2015.

### **2014 :**

62nd NIBB Conference 'Force in Development', in Okazaki, Japan, Nov. 16-19, 2014.  
7th Australian Developmental Biology Workshop, Tangalooma, Australia, 12-15 Nov 2014 ("EMBO Keynote Lecture").  
*IPSEN-Science, Bridging Biomedical Worlds* conference « Turning Obstacles into Opportunities for Stem Cell Therapy », Beijing, 13-15 Oct 2014.  
EMBO-FEBS Conference, Paris 31 Aug-3 Sept 2014.  
EMBO|EMBL Symposium Epithelia: The Building Blocks of Multicellularity, Heidelberg, 27-30 Aout 2014.  
74th Society of Developmental Biology Meeting, Seattle, 17-21 Juillet 2014.  
EMBO Drosophila Development Conference, Crete, 22-28 Juin 2014.  
Company of Biologists Workshop, Wiston House, West Sussex, UK, 18-21 Mai 2014 "Coordinating Cell Polarity".  
7th Canadian Developmental Biology Conference, Mont Tremblant, Canada, 17-19 March 2014.  
Conference 'Mechanics and growth of tissues: from development to cancer', Curie Institute, Paris 13-16 Jan 2014.

### **2013 :**

Berkeley, CA, Symposium "The mechanical basis of biological form", 26 Avril 2013.  
Bangalore, NCBS, "Mechanical manipulations and responses of the cell at the nanoscale and beyond", 15-21 Avril 2013.  
Workshop 'Building beauty: from genes to shape.' Heidelberg, 20-21 Juin 2013.

Geneva: Physics of Biology 26-28 Nov. 2013.

**2012 :**

ESF Conference, Barcelona, 13-14 Fév 2012.  
DFG Cell Biology Conference, Dresden. 21-22 Mars 2012.  
EMBO-ESF Conference on Cell polarity, Pulstuk, Poland, 31 march-3 Avril 2012.  
EMBO-ESF Conference on Physics of Cells, Giens, France, 2-8 Sept 2012.  
EMBO Conference Series Morphogenesis and Dynamics of Multicellular Systems, Heidelberg, (7-9 Sep 2012).  
EMBO Meeting, Nice, France, 23-25 Sept 2012. Session chair and speaker : Cell Polarity.

**2011 :**

ESF Conference, Barcelona (org. H Lopez Schier), 7-9 Mars 2011.  
Conference on Growth and Mechanics, Dresden (org. F. Jullicher, J Prost and S. Eaton), 21-25 Mars 2011.  
CCCD Conference, Saint Malo (org. C. Prigent), 26-28 Mai 2011.  
International Meeting of Systems Biology, Manheim, 28-30 Sep 2011.  
SFBD/BSDB Meeting, Nice (org. S. Noselli), 3-6 Sept 2011.  
Exciting Biologies Meeting- 10 years anniversary of Developmental Cell. 'Biology at the Interface', RIKEN, Kobe, 29 Sept-1 Oct 2011.  
EMBO/ESF Conference on Cytoskeleton, Lago di Guarda (org. G. Scitta), 28 Oct-2 Nov 2011.  
5th Mechanobiology Conference: The mechanobiology of multicellular systems, Singapore 9-11 Nov 2011.  
ASCB Conference, Denver, Session chair. 3-6 Dec 2011.

**2010 :**

Conference IHES, Modelling Biology, 11-14 Janvier 2010.  
Meeting Cell Adhesion, Paris 6-7 Mai 2010.  
Meeting Actin Cytoskeleton, Gif/Yvette, 2-4 Juin 2010.  
Meeting Company of Biologists on Stochasticity in Cell and Developmental Processes, Cumberland Lodge, Londres, 17-20 Octobre 2010.  
Meeting Physics of Living Matter, NCBS, Bangalore, India, Nov 2010.  
Meeting of International Society of Differentiation, Nara, Japon, 15-18 Nov 2010.

**2009 :**

European Drosophila Research Conference Nice, 18-21 Nov 2009 (Plenary Lecture).  
3rd Mechanobiology Conference, MBI, Singapore, 3-5 Nov 2009.  
EMBO Workshop 'Morphogenesis and Dynamics of Multicellular Systems' in Heidelberg 2-6 Oct 2009.  
International Society of Developmental Biology Meeting Edinburgh 6-11 Sep 2009.  
EMBO Meeting, Amsterdam 30-31 Aout 2009.  
EMBO/SNF Symposium on "Developmental Systems" Arolla Conference 'Frontiers in Genetics'. Arolla, Switzerland, 18-23 Aout 2009.  
Gordon Research Conference "Cell Contact & Adhesion", Waterville Valley, USA. 28 Juin-3rd Juillet 2009.  
London Research Institute Symposium on Developmental Biology: Organising tissues in time and space. London, 17-19 Juin 2009.  
SFB Symposium "Molecular Cell Dynamics" in Muenster, 2-6 Juin 2009.  
ESF-EMBO Symposium on Cell polarity and membrane trafficking, Sant Feliu de Guixols, Espagne, 23-28 Mai 2009.  
CDB Symposium "Shape and Polarity" in Kobe, Japan, Mars 23-25, 2009.

**2008 :**

Physics and Biology of Morphogenesis, KITP meeting, Santa Barbara, Mars 2008.  
Atelier INSERM imaging the cell. Saint Raphael, 4-7 Juin 2008.  
Gordon Research Conference, Cell adhesion. 29 Juin-4 Juillet 2008.  
SFBD-JSDB meeting, Giens 13-17 Sep 2008.

Barcelona BioMed Conference, Morphogenesis, 6-8 Oct 2008.

**2007 :**

JFFoS, JSPS-CNRS 'Frontiers of Science symposium, Tokyo, 27-29 Jan 2007.  
48th annual Drosophila Research Conference, Philadelphia Marriott, 7-11 Mars 2007 (Plenary Lecture).  
Meeting des Treilles , Dendritic Cells, Avril 2007.  
JSDB-JSCB, Japanese Society for Cell and Developmental Biology, meeting in Fukuoka, Japan, Mai 2007.  
Gordon Research Conference, Developmental Biology, in Proctor Academy, NH, USA. 25-29 Juin 2007.  
ELSO meeting, Dresden, 2 sept 2007 (Plenary Lecture).  
EDRC, European Drosophila Research Conference, Vienna, 12-14 Sep 2007.  
Symposium Development Biology, McGill Univ, Montreal, October 2007.  
ASCB meeting : chair, Washington DC, USA, Dec 1-5 Déc 2007.

**2006 :**

2<sup>nd</sup> Joint meeting of the Israeli societies of cell biology and developmental biology, Eilat, Israel. (org Talila Volk), 12-14 Fév 2006.  
20th IUBMB International Congress of Biochemistry and Molecular Biology and the 11th FAOBMB Congress., Kyoto, 17-23 Juin 2006.  
Meeting SFBD-Swiss society of developmental biology (Arz les Bains,) (org K Jagla and M. Affolter), 22-26 sept 2006.  
Meeting société française de drosophile, Saint Jean cap Ferrat, (org Pierre Leopold), 11-14 Oct 2006.  
Cell migration in development and disease, Paris-IJM, (org JL Duband et A. Chedotal), 20-21 Nov 2006.  
EMBO meeting "Developmental Mechanisms and Disease Models" in Kanpur, India (org Stephen Cohen and Pardip Sinha).

**2005 :**

Atelier INSERM Polarité cellulaire (André Le Bivic et F. Schweisguth), La Londe les Maures, 10-11 Février 2005.  
Keystone Symposium on Cell Polarity and Asymmetric Cell Divisions/Cytoskeletal Systems Interactions in Cellular Morphogenesis, Spokane Idaho, USA, 4-8 Mars 2005.  
The 2nd Great Barrier Reef Drosophila Conference, Cairns, Australia (org. Rob Saint), 8-12 September 2005.  
Séminaires Daniel Dautreppe 2005 de la Société Française de Physique (SFP) sur la Physique du vivant, Grenoble, du 26-30 Sep 2005.  
Colloque des lauréats de la Fondation Schlumberger pour l'Education et la Recherche (FSER) à la Fondation des Treilles (org. Nicole le Dourain). 6-7 Oct 2005.  
EMBO Course on Endocytosis. MPI-Dresden, (org. Marcos Gonzalez-Gaitan), 13-14 Oct 2005.  
The 78 Annual Meeting of the Japanese Biochemical Society, Kobe (Japan), Session : Cytoskeletal dynamics, 19-22 Oct 2005.

**2004 :**

EMBO workshop on Protein sorting in the secretory pathway. 6<sup>th</sup> Annaberg Conference, Autriche, (org. Sharon Tooze and G. Seethaler), 13-18 Jan 2004.  
Third Annual Timberline Symposium on Epithelial Polarity: Basic Biology and Clinical Implications. Timberline lodge, Oregon USA (org. W.J. Nelson and R. Coffey), 31 Jan-3 Fév 2004.  
EMBO conference on the Molecular and Developmental Biology of Drosophila Kolymbari, Crete (Greece), 20-26 Juin 2004.  
Gordon Conference on Endosomes and Lysosomes (org. T. Kirchhausen), Proctor Academy, NH, USA, 27-30 Juin 2004.  
ELSO meeting 2004, Nice, Co-chair de la session "Polarity in animals and plants" avec Frédéric Berger.  
Second London Fly meeting, (org. J.P Vincent), 17 Sept 2004.  
2nd International DFG Symposium "Cell Migration in Development and Disease", Karlsruhe. Allemagne (org. D. Wedlich), 10-13 Oct 2004.  
Meeting ASCB (American Society of Cell Biology): Washington DC. Session: Junctions and cell polarity (chairs: A. LeBivic and E. Rodriguez-Boulan), 4-9 Dec 2004.

EMBO workshop on "Cell Interactions in Development and Disease" , Hyderabad, India (L.S. Shashidara, Stephen Cohen), 19-21 Dec 2004.

## **10. Publications**

### **Main publications:**

1. Modular activation of Rho1 by GPCR signalling imparts polarized myosin II activation during morphogenesis. Kerridge S, Munjal A, Philippe JM, Jha A, de Las Bayonas AG, Saurin AJ, Lecuit T. **Nature Cell Biology.** 2016 Mar;18(3):261-70. doi: 10.1038/ncb3302.
2. Local and tissue scale forces drive oriented junction growth during tissue extension. Collinet C, Rauzi M, Lenne PF and Lecuit T. **Nature Cell Biology.** 2015, AOP 21 sep 2015.
3. A self-organized biomechanical network drives shape changes during tissue morphogenesis. Munjal A, Philippe JM, Edwin Munro and Lecuit T. **Nature.** 2015 Aug 20;524(7565):351-5
4. Septins promote F-actin ring formation by crosslinking actin filaments into curved bundles. Mavrakis M, Azou-Gros Y, Tsai FC, Alvarado J, Bertin A, Iv F, Kress A, Brasselet S, Koenderink GH, Lecuit T. **Nature Cell Biology.** 2014 Apr;16(4):322-34.
5. Oscillation and polarity of E-cadherin asymmetries control actomyosin flow patterns during morphogenesis Levayer, R and Lecuit T. **Developmental Cell.** 2013, Jul 29 ; 26(2):162-75.
6. Adhesion disengagement uncouples intrinsic and extrinsic forces to drive cytokinesis in epithelial tissues. Guillot C, Lecuit T. **Developmental Cell.** 2013 Feb 11;24(3):227-41.
7. Spatial regulation of Dia and Myosin-II by RhoGEF2 controls initiation of E-cadherin endocytosis during epithelial morphogenesis. Levayer, R., Pelissier, A. and Lecuit, T. **Nature Cell Biology** 2011, May. 13(5):529-40.
8. Planar polarized actomyosin contractile flows control epithelial junction remodelling. Rauzi, M., Lenne PF., and Lecuit, T. **Nature** 2010. (Dec 23) 468(7327):1110-4.
9. A two-tiered mechanism for stabilization and immobilization of E-cadherin. Cavey, M., Rauzi, M., Lenne, P-F. and Lecuit, T. **Nature.** 2008. 453(7196): 751-6.
10. Nature and anisotropy of cortical forces orienting Drosophila tissue morphogenesis. Rauzi, M., Verant, P., Lecuit, T. and Lenne, PF. **Nature Cell Biology** 2008 Dec;10(12):1401-10.
11. Spatial control of actin organization at adherens junctions by the synaptotagmin like protein Btsz. Pilot F, Philippe JM, Lemmers C, Lecuit T. **Nature.** 2006 Epub July 9.
12. Myosin-dependent junction remodelling controls planar cell intercalation and axis elongation. Bertet C, Sulak L, Lecuit T. **Nature.** 2004 Jun 10;429(6992):667-71.
13. Proximal-distal axis formation in the Drosophila leg. Lecuit T, Cohen SM. **Nature.** 1997 Jul 10;388(6638):139-45.
14. Two distinct mechanisms for long-range patterning by Decapentaplegic in the Drosophila wing. Lecuit T, Brook WJ, Ng M, Calleja M, Sun H, Cohen SM. **Nature.** 1996 May 30;381(6581):387-93.

### **Main reviews:**

Lecuit T and Lenne PF : Cell surface mechanics and the control of cell shape, tissue patterns and morphogenesis. **Nature Reviews Molecular Cell Biology.** 2007 8(8):633-44.

Mechanics of epithelial tissue homeostasis and morphogenesis. Guillot C, Lecuit T. **Science.** 2013, Jun



**Complete list of publications:**

**Research Articles:**

Pre-Assembled Nuclear Pores Insert into the Nuclear Envelope During Early Development. Hampoelz B, Mackmull MT, Machado P, Ronchi P, Bui KH, Schieber N, Santarella-Mellwig R, Necakov A, Andrés-Pons A, Philippe JM, Lecuit T, Schwab Y, Beck M. **Cell** 2016 Jul 28;166(3):664-78. doi: 10.1016/j.cell.2016.06.015.

Modular activation of Rho1 by GPCR signalling imparts polarized myosin II activation during morphogenesis. Kerridge S, Munjal A, Philippe JM, Jha A, de Las Bayonas AG, Saurin AJ, Lecuit T. **Nature Cell Biology**. 2016 Mar;18(3):261-70. doi: 10.1038/ncb3302.

Local and tissue scale forces drive oriented junction growth during tissue extension. Collinet C, Rauzi M, Lenne PF and Lecuit T. **Nature Cell Biology**. 2015, AOP 21 sep 2015.

A self-organized biomechanical network drives shape changes during tissue morphogenesis. Munjal A, Philippe JM, Edwin Munro and Lecuit T. **Nature**. 2015 Aug 20;524(7565):351-5

Dynamic clonal analysis based on chronic in vivo imaging allows multi-scale quantification of growth in the Drosophila wing disc. Heemskerk, I, Lecuit, T and LeGoff, L. **Development**. 2014 Jun;141(11):2339-48.

Septins promote F-actin ring formation by crosslinking actin filaments into curved bundles. Mavrakis M, Azou-Gros Y, Tsai FC, Alvarado J, Bertin A, Iv F, Kress A, Brasselet S, Koenderink GH, Lecuit T. **Nature Cell Biology**. 2014 Apr;16(4):322-34.

Principles of E-cadherin supramolecular organization *in vivo*. Truong-Quang, BA, Mani M, Markhova O, Lecuit T, Lenne PF. **Current Biology**, 2013 Nov 18;23(22):2197-207.

A global pattern of mechanical stress polarizes cell divisions and cell shape in the growing Drosophila wing disc. Le Goff, L, Rouault, H. and Lecuit, T **Development** 2013 Oct;140(19):4051-9

Oscillation and polarity of E-cadherin asymmetries control actomyosin flow patterns during morphogenesis Levayer, R and Lecuit T. **Developmental Cell**. 2013, Jul 29 ; Jul 29 ; 26(2):162-75.

Adhesion disengagement uncouples intrinsic and extrinsic forces to drive cytokinesis in epithelial tissues. Guillot C, Lecuit T. **Developmental Cell**. 2013 Feb 11;24(3):227-41.

Transcriptional and epigenetic signatures of zygotic genome activation during early Drosophila embryogenesis. Darbo E, Herrmann C, Lecuit T, Thieffry D, van Helden J. **BMC Genomics**. 2013 Apr 5;14:226. doi: 10.1186/1471-2164-14-226.

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Thierry Lhermite: TV5 Magazine de la Santé

Thierry Lhermitte, ambassadeur de la FRM visite l'IBDM en 2011 et présente une chronique sur notre équipe en mai 2012.

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