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Date of Birth: June 8, 1947

**EDUCATION**

University of Notre Dame, Indiana	B.S. (Biology)	1969
Yale University	Ph.D (Walter Gehring)	1974
University of Zurich, Switzerland	Postdoctoral training (Rolf Nöthiger)	1975

**ACADEMIC EMPLOYMENT**

1975-1978	Postdoctoral Fellow, Zoologisches Institut der Universität Zurich, with Dr. Rolf Nöthiger.
1976	EMBO short-term fellowship to the laboratory of Mme. Gans, Laboratoire de Genetique Moleculaire, C.N.R.S., Gif-sur-Yvette, France.
1977	Visiting Researcher, laboratory of Peter Bryant, Center of Pathobiology, U. of CA, Irvine.
1978-1981	Group Leader, European Molecular Biology Laboratory, Heidelberg, West Germany.
1981-1983	Assistant Professor of Biology, Princeton University.
1983-1987	Associate Professor of Biology, Princeton University.
1987-Present	Professor, Department of Molecular Biology, Princeton University.
1997-Present	Investigator, Howard Hughes Medical Institute.
1997-Present	Adjunct Professor of Biochemistry at the University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School.

**HONORS, AWARDS and PROFESSIONAL RECOGNITION**

1969	Graduated Magna cum laude, University of Notre Dame, South Bend, Indiana
1974	John Spangler Niclaus Prize for the outstanding dissertation, Yale University
1989-1999	NIHHD Merit Award
1993	Appointed Squibb Professor of Molecular Biology, Princeton University
1993	Fellow, American Academy of Arts and Sciences

1994	Member, National Academy of Sciences
1995	Nobel Prize in Physiology or Medicine
1995	The Genetics Society of America Medal
1997	Associate Member, European Molecular Biology Organization
1997	Member, American Philosophical Society
1999	Foreign Member, Max-Planck Society
1999	Mendel Medal, UK Genetical Society
2003	Inducted into the NICHD Hall of Honor
2005	Wilbur Lucius Cross Medal of the Yale Graduate School Alumni Association
2006-2015	NICHHD Merit Award
2007	President, Society of Developmental Biology
2011	Orden Pour Le Merit
2012	Großes Verdienstkreuz mit Stern der Bundesrepublik Deutschland

### **Honorary degrees**

University of Alabama, Birmingham, Alabama  
Rutgers University, New Brunswick, New Jersey  
Rider University, Lawrenceville, New Jersey  
University of Zurich, Zurich, Switzerland  
Universidad Andrés Bello, Santiago, Chile

### **Advisory Boards**

1987-1992	Scientific Advisor Council, Damon Runyon-Walter Winchell Cancer Fund
1998-2008	Member, Science Advisory Board, Rider University
1998-2008	Member, Science Advisory Board, Whitehead Institute
2006-Present	Committee Member, VectorBase/SWG
2006-Present	Advisory Board Member, Institute Jacques Monod, Paris
2007-Present	Member, Advisory Board, National Institute of Genetics
2007-2012	Member, NICHD Board of Scientific Counselors
2010-Present	Editor in Chief, WIREs Developmental Biology

### **Bibliography**

- Dubuis JO, Tkacik G, Wieschaus EF, Gregor T, Bialek W. (2013) Positional information, in bits. Proc Natl Acad Sci. 110: 16301-8.
- Wang YC, Khan Z, Wieschaus EF. (2013) Distinct Rap1 activity states control the extent of epithelial invagination via  $\alpha$ -catenin. Dev Cell. 25: 299-309.
- Osterfield M, Du X, Schüpbach T, Wieschaus E, Shvartsman SY. (2013) Three-dimensional epithelial morphogenesis in the developing Drosophila egg. Dev Cell. 24: 400-10.

Di Talia S, She R, Blythe SA, Lu X, Zhang QF, Wieschaus EF. (2013) Posttranslational control of Cdc25 degradation terminates *Drosophila*'s early cell-cycle program. *Curr Biol.* 23: 127-32.

Gelbart MA, He B, Martin AC, Thiberge SY, Wieschaus EF, Kaschube M. (2012) Volume conservation principle involved in cell lengthening and nucleus movement during tissue morphogenesis. *Proc Natl Acad Sci.* 109: 19298-303.

Grimm O, Zini VS, Kim Y, Casanova J, Shvartsman SY, Wieschaus E. (2012) Torso RTK controls Capicua degradation by changing its subcellular localization. *Development.* 139: 3962-3968

Drocco JA, Wieschaus EF, Tank DW. (2012) The synthesis-diffusion-degradation model explains Bicoid gradient formation in unfertilized eggs. *Phys Biol.* 9: 055004

He B, Caudy A, Parsons L, Rosebrock A, Pane A, Raj S, Wieschaus E. (2012) Mapping the pericentric heterochromatin by comparative genomic hybridization analysis and chromosome deletions in *Drosophila melanogaster*. *Genome Res.*

Di Talia S, Wieschaus EF. (2012) Short-term integration of Cdc25 dynamics controls mitotic entry during *Drosophila* gastrulation. *Dev Cell* 22(4):763-74.

Wang YC, Khan Z, Kaschube M, Wieschaus EF. (2012) Differential positioning of adherens junctions is associated with initiation of epithelial folding. *Nature.* 28;484(7394):390-3

Drocco JA, Grimm O, Tank DW, Wieschaus E. (2012) Measurement and perturbation of morphogen lifetime: effects on gradient shape. *Biophys J.* 101(8):1807-15.

Little SC, Wieschaus EF. (2011) Shifting patterns: merging molecules, morphogens, motility, and methodology. *Dev Cell.*21:2-4.

Little SC, Tkačik G, Kneeland TB, Wieschaus EF, Gregor T. (2011) The formation of the Bicoid morphogen gradient requires protein movement from anteriorly localized mRNA. *PLoS Biol.* 9(3):e1000596.

Grimm O, Wieschaus E. (2012) The Bicoid gradient is shaped independently of nuclei. *Development.* 137:2857-62.

Lu X, Drocco J, Wieschaus EF. (2010) Cell cycle regulation via inter-nuclear communication during the early embryonic development of *Drosophila melanogaster*. *Cell Cycle.* 9(14):2908-10.

Grimm O, Coppey M, Wieschaus E. (2010) Modelling the Bicoid gradient. *Development.* 137(14):2253-64. Review.

- Martin AC, Gelbart M, Fernandez-Gonzalez R, Kaschube M, Wieschaus EF. (2010) Integration of contractile forces during tissue invagination *J Cell Biol* 188(5):735-49
- Martin AC, Wieschaus EF. (2010) Tensions divide. *Nat Cell Biol.* 12(1):5-7
- Lu X, Li JM, Elemento O, Tavazoie S, Wieschaus EF. (2009) Coupling of zygotic transcription to mitotic control at the *Drosophila* mid-blastula transition. *Development.* 136:2101-10.
- Martin AC, Kaschube M, Wieschaus EF. (2009) Pulsed contractions of an actin-myosin network drive apical constriction. *Nature.* 457(7228):495-9.
- Sokac AM, Wieschaus E. (2008) Zygotically controlled F-actin establishes cortical compartments to stabilize furrows during *Drosophila* cellularization. *J Cell Sci.* 121: 1815-1824.
- Sokac AM, Wieschaus E. (2008) Local actin-dependent endocytosis is zygotically controlled to initiate *Drosophila* cellularization. *Dev Cell.* 14: 775-786.
- Gregor T, McGregor AP, Wieschaus EF. (2008) Shape and function of the Bicoid morphogen gradient in dipteran species with different sized embryos. *Dev Biol.* 316: 350-358.
- Gregor, T., Tank, D.W., Wieschaus, E.F., Bialek, W., (2007). Probing the limits to positional information. *Cell.*, 130:153-64.
- Gregor, T., Wieschaus, E.F., McGregor, A.P., Bialek, W., Tank, D.W. (2007). Stability and nuclear dynamics of the bicoid morphogen gradient. *Cell.*, 130:141-52.
- Goodliffe, J.M., Wieschaus, E., Cole, M.D. (2007). Coordinated regulation of Myc trans-activation targets by Polycomb and the Trithorax group protein Ash1. *BMC Mol Biol.*, 8:40.
- De Renzis, S., Elemento, O., Tavazoie, S., Wieschaus, E. (2007). Unmasking activation of the zygotic genome using chromosomal deletions in the *Drosophila* embryo. *PLoS Biol.*, 5.
- Frydman, H.M., Li, J.M., Robson, D.N., Wieschaus, E. (2006). Somatic stem cell niche tropism in *Wolbachia*. *Nature*, 441:509-12.
- De Renzis, S., Yu, J., Zinzen, R., Wieschaus, E. (2006). Dorsal-ventral pattern of delta trafficking is established by a snail-tom-neuralized pathway. *Dev Cell*, 10(2):257-64.
- Goodliffe, J.M., Wieschaus, E., Cole, M.D. (2005). Polycomb Mediates Myc Autorepression and its Transcriptional Control of Many Loci in *Drosophila*. *Genes & Development*, 19(24): 2941-2946.
- Gregor, T., Bialek, W., de Ruyter van Steveninck, R.R., Tank, D.W. and Wieschaus, E.F. (2005). Diffusion and scaling during early embryonic pattern formation. *PNAS*, 10:1073.

- Ferre, PM, Frydman, HM, Li, JM, Cao, J, Wieschaus, EF, Sullivan, W. (2005). Wolbachia Utilizes Host Microtubules and Dynein for Anterior Localization in the *Drosophila* Oocyte. *PLoS Pathog.*, 1(2).
- Dawes-Hoang, R., Parmar, K.M., Christiansen, A.E., Phelps, C.B., Brand, A.H. and Wieschaus, E. (2005). Folded gastrulation, cell shape change and the control of myosin localization. *Development*, 132(18):4165-78.
- Zallen, J.A., Wieschaus, E. (2004). Patterned gene expression directs bipolar planar polarity in *Drosophila*. *Developmental Cell*, Vol. 6(3):343-55.
- Thomas, J.H. and Wieschaus, E. (2004). *src64* and *tec29* are required for microfilament contraction during *Drosophila* cellularization. *Development*, 131(4):863-71.
- Grosshans, J., Mueller, A. and Wieschaus, E. (2003). Control of cleavage cycles in *Drosophila* embryos by *fruhstart*. *Developmental Cell*, Vol. 5, 285-294.
- Tolwinski, N., Wehrli, M., Rives, A. and Wieschaus, E. (2003). Wg/Wnt Signal Can Be Transmitted through Arrow/LRP5,6 and Axin Independently of Zw3/Gsk3 $\beta$  Activity. *Developmental Cell*, Vol. 4, 407-418.
- Ahmed, Y., Nouri, A. and Wieschaus, E. (2002). *Drosophila* *Apc1* and *Apc2* regulate Wingless transduction throughout development. *Development*, 129, 1751-1762.
- Lecuit, T., Samanta, R. and Wieschaus, E.F. (2002) *slam* Encodes a developmental regulator of polarized membrane growth during cleavage of the *Drosophila* embryo. *Development Cell*, Vol. 2, 425-436, April 2002.
- Gross, S.P., Welte, M.A., Block S. M. and Wieschaus, E. F. (2002) Coordination of opposite-polarity microtubule motors. *J. Cell Bio.* 156, 4, 715-724.
- Hunter, C., Sung, P., Schejter, E. and Wieschaus, E. (2002). Conserved domains of the Nullo protein required for cell-surface localization and formation of adherens junctions. *Mol. Bio. of the Cell*, 13, 146-157.
- Blankenship, J. and Wieschaus, E. (2001). Two new roles for the *Drosophila* AP patterning system in early morphogenesis. *Development* 128, 5129-5138.
- Dawes-Hoang, R. and E. Wieschaus (2001). Cell and Developmental Biology – a Shared History, an Intertwined Future. *Dev Cell* 1, 1-20, July 2001.
- Tolwinski, N. and E. Wieschaus (2001). Armadillo nuclear import is regulated by cytoplasmic anchor Axin and nuclear anchor dTCF/Pan. *Development* 128, 2107-2117.

- Lecuit, T. and E. Wieschaus (2000). Polarized insertion of a new membrane from a cytoplasmic reservoir during cleavage of the *Drosophila* embryo. *J. Cell Biol.* 150, Number 4, 849-860.
- Hunter, C., and E. Wieschaus (2000). Regulated Expression of *nullo* is required for the formation of distinct apical and basal adherens junctions in the *Drosophila* blastoderm. *J. Cell Biol.* 150, 391-401.
- Grosshans, J. and E. Wieschaus (2000). A Genetic link between morphogenesis and cell division during formation of the ventral furrow in *Drosophila*. *Cell* 101: 523-531.
- Gross, S., M. Welte, S. Block and E. Wieschaus (2000). Dynein-mediated Cargo Transport in Vivo: A Switch Controls Travel Distance. *Journal of Cell Biology* 148: No. 5, 945-955.
- Jazwinska, A., N. Kirov, E. Wieschaus, S. Roth and C. Rushlow (1999). The *Drosophila* gene *brinker* reveals a novel mechanism of Dpp target gene regulation. *Cell* 96:563-573.
- Muller, H.-A. J., R. Samanta and E. Wieschaus (1999). Wingless signaling in the *Drosophila* embryo: zygotic requirements and the role of the *frizzled* genes. *Development* 126:577-586.
- Ahmed, Y., S. Hayashi, A. Levine and E. Wieschaus (1998). Regulation of Armadillo by a *Drosophila* APC Inhibits Neuronal Apoptosis during Retinal Development. *Cell* 93:1171-1182.
- Schüpbach, T. and E. Wieschaus. (1998). Probing for gene specificity in epithelial development. *Int. J. Dev. Biol.* 42:249-255.
- Welte, M. A., S. P. Gross, M. Postner, S.M. Block and E. F. Wieschaus (1998). Developmental Regulation of Vesicle Transport in *Drosophila* Embryos: Forces and Kinetics. *Cell* 92:547-557.
- Morize, P., A.E. Christiansen, M. Costa, M., S. Parks, and E. Wieschaus. (1998). Hyperactivation of the folded gastrulation pathway induces specific cell shape changes. *Development* 125:589-597.
- Vincent, A., J.Todd Blankenship, and E. Wieschaus. (1997). Integration of the head and trunk segmentation systems controls cephalic furrow formation in *Drosophila*. *Development* 124: 3747-3754.
- Hayashi, S., B. Rubinfeld, B. Souza, P. Polakis, E. Wieschaus, and A. Levine. (1997). A *Drosophila* homolog of the tumor suppressor gene adenomatous polyposis coli down-regulates  $\beta$ -catenin but its zygotic expression is not essential for the regulation of Armadillo. *PNAS* 94:242-247.

- Müller, H. Arno J. and E. Wieschaus. (1996). *armadillo*, *bazooka*, and *stardust* are critical for early stages in formation of the zonula adherens and maintenance of the polarized blastoderm epithelium in *Drosophila*. *Journal of Cell Biology* 134:149-163.
- Rauskolb, C., M. Peifer and E. Wieschaus (1995). *extradenticle* and the determination of segmental identities throughout *Drosophila* development. *Development* 121:3663-3673.
- Bejsovec, A. and E. Wieschaus (1995). Signaling activities of the *Drosophila wingless* gene are separately mutable and appear to be transduced at the cell surface. *Genetics* 139:309-320.
- Irvine, K and Wieschaus, E. (1994). *fringe*, a boundary-specific signalling molecule mediates interactions between dorsal and ventral cells during *Drosophila* wing development. *Cell* 79:595-606.
- Rauskolb, C. and E. Wieschaus (1994). Coordinate regulation of downstream genes by *extradenticle* and the homeotic selector roteins. *EMBO J.* 13: 3561-3569.
- Postner, M. A. and E. Wieschaus (1994). The *nullo* protein is a component of the actin-myosin network that mediates cellularization in *Drosophila melanogaster* embryos. *Journal of Cell Science* 107:1863-1873
- Irvine, K.D. and E. Wieschaus (1994). Cell intercalation during *Drosophila* germband extension and its regulation by pair-rule segmentation genes. *Development* 120: 827-841.
- Armand, P., A.C. Knapp, A.J. Hirsch, E. F. Wieschaus and M. D. Cole (1994). A novel bHLH protein is expressed exclusively in muscle attachment sites of the *Drosophila* epidermis. *Molecular and Cellular Biology* pp 4145-4154.
- Costa, M., E.T. Wilson and E. Wieschaus (1994). A Putative Cell Signal Encoded by the *folded gastrulation* Gene Coordinates Cell Shape Changes during *Drosophila* Gastrulation. *Cell* 76:1075-1089.
- Peifer, M., D. Sweeton, M. Casey and E. Wieschaus (1994). *wingless* signal and Zeste-white 3 kinase trigger opposing changes in the intracellular distribution of Armadillo. *Development* 120:369-380.
- Peifer, M., S. Orsulic, D. Sweeton and E. Wieschaus (1993). A role for the *Drosophila* segment polarity gene *armadillo* in cell adhesion and cytoskeletal integrity during oogenesis. *Development* 118:1191-1207.
- Schejter, E.D. and E. Wieschaus (1993). *bottleneck* acts as a regulator of the microfilament network governing cellularization of the *Drosophila* embryo. *Cell* 75:373-385.

- Rauskolb, C., M. Peifer and E. Wieschaus (1993). *extradenticle*, a Regulator of Homeotic Gene Activity, is a Homolog of the Homeobox-Containing Human Proto-Oncogene *PBX1*. *Cell* 74: 1101-1112.
- Bejsovec, A. and E. Wieschaus (1993). Segment Polarity Gene Interactions Modulate Epidermal Patterning in *Drosophila* Embryos. *Development* 119:501-517.
- Postner, M. A., K. G. Miller and E. F. Wieschaus. (1992). Maternal effect mutations of the *sponge* locus affect actin cytoskeletal rearrangements in *Drosophila melanogaster* embryos. *J. Cell Biology* 119:1205-1218.
- Peifer, M. and E. Wieschaus (1992). The product of the *Drosophila melanogaster* segment polarity gene *armadillo* is highly conserved in sequence and expression in the housefly *Musca domestica*. *J. Mol. Evol.* 36:224-233.
- Peifer, M., P. McCrea, K. J. Green, E. Wieschaus and B. Gumbiner (1992). The vertebrate adhesive junction proteins b-catenin and plakoglobin and the *Drosophila* segment polarity gene *armadillo* form a multigene family with similar properties. *J. Cell Biology* 118:681-691.
- Rose, L. S. and E. Wieschaus. (1992). The *Drosophila* cellularization gene *nullo* produces a blastoderm-specific transcript whose levels respond to the nucleocytoplasmic ratio. *Genes & Dev.* 6:1255-1268.
- Wieschaus, E., N. Perrimon and R. Finkelstein (1992). *Orthodenticle* activity is required for the development of medial structures in the larval and adult epidermis of *Drosophila*. *Development*.115:801-811.
- Schupbach, T. and E. Wieschaus (1991). Female sterile mutations on the second chromosome of *Drosophila melanogaster*: Mutations blocking oogenesis or altering egg morphology. *Genetics* 129:1119-1136.
- Sweeton, W. S. Parks, M. Costa and E. Wieschaus (1991). Gastrulation in *Drosophila*: The formation of the ventral furrow and posterior midgut invaginations. *Development* 112:775-789.
- Peifer, M. C. Rauskolb, M. Williams, B. Riggelman and E. Wieschaus (1991). The segment polarity gene *armadillo* affects the *wingless* signalling pathway in both embryonic and adult pattern formation. *Development* 111:1029-1043.
- Parks, S. and E. Wieschaus (1991). The *Drosophila* gastrulation gene *concertina* encodes a Gα-like protein. *Cell* 64:447-458.
- Simpson, L. and E. Wieschaus (1990). Zygotic activity of the *nullo* locus is required to stabilize the actin-myosin network during cellularization in *Drosophila*. *Development* 110:851-863.



- Peifer, M. and E. Wieschaus (1990). The segment polarity gene *armadillo* encodes an evolutionarily conserved and functionally modular protein that is the *Drosophila* homolog of human plakoglobin. *Cell* 63:1167-1178.
- Peifer, M. and E. Wieschaus (1990). Mutations in the *Drosophila* gene *extradenticle* affect the way specific homeodomain proteins regulate segmental identity. *Genes & Dev.* 4:1209-1223.
- Coulter, D. E., E. A. Swaykus, M. A. Beran-Koehn, D. Goldberg, E. Wieschaus and P. Schedl (1990). Molecular analysis of *odd-skipped*, a zinc-finger encoding segmentation gene with a novel pair-rule expression pattern. *EMBO* 8:3795-3804.
- Riggleman, R., P. Schedl and E. Wieschaus (1990). Spatial expression of the *Drosophila* segment polarity gene *armadillo* is post-transcriptionally regulated by *wingless*. *Cell* 63:549-560.
- Riggleman, R., E. Wieschaus and P. Schedl (1989). Molecular analysis of the *armadillo* locus: uniformly distributed transcripts and a protein with novel internal repeats are associated with a *Drosophila* segment polarity gene. *Genes & Dev.* 3:96-113.
- Schüpbach, T. and E. Wieschaus (1989). Female sterile mutations on the second chromosome of *Drosophila melanogaster*. I. Maternal effect mutations. *Genetics* 121:101-117.
- Wieschaus, E. and D. Sweeton (1988). Requirements for X-linked zygotic gene activity during cellularization of early *drosophila* embryos. *Development* 104:483-493.
- Merrill, P. T., D. Sweeton and E. Wieschaus (1988). Requirements for autosomal gene activity during precellular stages of *Drosophila melanogaster*. *Development* 104:495-509.
- Coulter, D. E. and E. Wieschaus (1988). Gene activities and segmental patterning in *Drosophila*: analysis of *odd-skipped* and pair-rule double mutants. *Genes & Dev.* 2:1812-1823.
- Zusman, S. B., D. Sweeton and E. F. Wieschaus (1988). Short gastrulation, a mutation causing delays in stage specific cell shape changes during gastrulation in *Drosophila melanogaster*. *Dev. Biol.* 129:417-427.
- Zusman, S. and E. Wieschaus (1987). A cell marker system and mosaic patterns during early embryonic development in *Drosophila melanogaster*. *Genetics* 115:725-736.
- Wieschaus, E. and R. Riggleman (1987). Autonomous requirements for the segment polarity gene *armadillo* during *Drosophila* embryogenesis. *Cell* 49:177-184.
- Schubach, T. and E. Wieschaus (1986). Maternal-effect mutations altering the anterior-posterior pattern of the *Drosophila* embryo. *Roux's Arch. Dev. Biol.* 195:302-317.

- Mohler, J. and E. Wieschaus (1986). Dominant maternal-effect mutations of *Drosophila melanogaster* causing the production of double-abdomen embryos. *Genetics* 112:803-822.
- Gergen, J. P. and E. Wieschaus (1986). Dosage requirement for *runt* in the segmentation of *Drosophila* embryos. *Cell* 45:289-299.
- Wieschaus, E. and E. Noell (1986). Specificity of embryonic lethal mutations in *Drosophila* analyzed in germ line clones. *Roux's Arch. Dev. Biol.* 195:63-73.
- Gergen, J. P. and E. F. Wieschaus (1986). Localized requirements for gene activity in segmentation of *Drosophila* embryos: analysis of *armadillo*, *fused*, *giant* and *unpaired* mutations in mosaic embryos. *Roux's Arch. Dev. Biol.* 195:49-62.
- Schupbach, T. and E. Wieschaus (1986). Germline autonomy of maternal-effect mutations altering the embryonic body pattern of *Drosophila*. *Dev. Biol.* 113:443-448.
- Zusman, S. B. and E. F. Wieschaus (1985). Requirements for zygotic gene activity during gastrulation in *Drosophila melanogaster*. *Dev. Biol.* 111:359-371.
- Gergen, J. P. and E. Wieschaus (1985). The localized requirements for a gene affecting segmentation in *Drosophila*: Analysis of larvae mosaic for *runt*. *Dev. Biol.* 109:321-335.
- Wieschaus, E., C. Nüsslein-Volhard and G. Jürgens (1984). Mutations affecting the pattern of the larval cuticle in *Drosophila melanogaster*. III. Zygotic loci on the X-chromosome and the fourth chromosome. *Roux's Arch. Dev. Biol.* 193:296-307.
- Jürgens, G., H. Kluding, C. Nüsslein-Volhard and E. Wieschaus (1984). Mutations affecting the pattern of the larval cuticle in *Drosophila melanogaster*. II. Zygotic loci on the third chromosome. *Roux's Arch. Dev. Biol.* 193:283-295.
- Nüsslein-Volhard, C., E. Wieschaus and H. Kluding (1984). Mutations affecting the pattern of the larval cuticle in *Drosophila melanogaster*. I. Zygotic loci on the second chromosome. *Roux's Arch. Dev. Biol.* 193: 267-282.
- Wieschaus, E., C. Nüsslein-Volhard and C. Kluding (1984). *Kruppel*, a gene whose activity is required early in the zygotic genome for normal segmentation. *Dev. Biol.* 104: 172-186.
- Wieschaus, E. and R. Nothiger (1982). The role of the *transformer* genes in the development of genitalia and analia of *Drosophila melanogaster*. *Dev. Biol.* 90:320-334.
- Wieschaus, E., C. Audit and M. Masson (1981). A clonal analysis of the roles of somatic cells and germ line during oogenesis in *Drosophila*. *Dev. Biol.* 88:92-103.

- Nüsslein-Volhard, C. and E. Wieschaus (1980). Mutations affecting segment number and polarity in *Drosophila*. *Nature* 287:795-801.
- Szabad, J., T. Schupbach and E. Wieschaus (1979). Cell lineage and development in the larval epidermis of *Drosophila melanogaster*. *Dev. Biol.* 73:256-271.
- Wieschaus, E. and J. Szabad (1979). The development and function of the female germ line in *Drosophila melanogaster*: a cell lineage study. *Dev. Biol.* 68:29-46.
- Schupbach, T., E. Wieschaus and R. Nöthiger (1978). The embryonic organization of the genital disc studied in genetic mosaics of *Drosophila melanogaster*. *Roux's Arch. Dev. Biol.* 185: 249-270.
- Schupbach, T., E. Wieschaus and R. Nöthiger (1978). A study of the female germ line in mosaics of *Drosophila*. *Roux's Arch. Dev. Biol.* 184:41-56.
- Wieschaus, E., J. L. Marsh and W. Gehring (1978). fs(1)K10, a germ line dependent female sterile mutation causing abnormal chorion morphology in *Drosophila melanogaster*. *Roux's Arch. Dev. Biol.* 184:75-82.
- Marsh, J. L. and E. Wieschaus (1978). Is sex determination in germ line and soma controlled by separate genetic mechanisms? *Nature* 272:249-251.
- Marsh, J. L. and E. Wieschaus (1977). Germ line dependence of the maroon-like maternal effect in *Drosophila*. *Dev. Biol.* 60:396-403.
- Marsh, J. L., E. B. van Deusen, E. Wieschaus and W. Gehring (1977). Germ line dependence of the deep orange maternal effect in *Drosophila*. *Dev. Biol.* 56:195-199.
- Gehring, W., E. Wieschaus and M. Holliger (1976). The use of "normal" and "transformed" gynandromorphs in mapping the primordial germ cells and gonadal mesoderm in *Drosophila*. *J. Embryol. exp. Morph.* 35:607-616.
- Wieschaus, E. and Gehring, W. (1976). Gynandromorph analysis of the thoracic disc primordia in *Drosophila melanogaster*. *Roux's Arch. Dev. Biol.* 180:31-46.
- Wieschaus, E. and Gehring, W. (1976). Clonal analysis of primordial disc cells in the early embryo of *Drosophila melanogaster*. *Dev. Biol.* 50:249-263.

#### Reviews, Perspectives, Books, and Other Articles

- Bialek W, Gregor T, Tank DW, Wieschaus EF. (2008) Response: can we fit all of the data? *Cell* 132: 17-18.

- Tolwinski, N.S., Wieschaus, E. (2004). A nuclear escort for beta-catenin. *Nature Cell Biology*, 6(7):579-80.
- Tolwinski, N.S., Wieschaus, E. (2004). A Nuclear Function for Armadillo/beta-Catenin. *PLoS Biol*, 2(4):E95.
- Dawes-Hoang, R., Zallen, J. and Wieschaus, E. (2003) Bringing Classical Embryology to *C. elegans* Gastrulation. *Developmental Cell Preview*, pages 6-7.
- Wieschaus, E. and C. Nüsslein-Volhard (1999). Looking at embryos. In: *Drosophila, A Practical Approach* (revised second edition). D. B. Roberts, ed., Oxford U. Press.
- Hunter, C. and Wieschaus, E. (1998). *Drosophila* actin binding proteins: bottleneck, nullo and serendipity- $\alpha$ . In *Guidebook to the Cytoskeletal and Motor Proteins* (T. Kreis and R.D. Vale, Eds.).
- Wieschaus, E. (1996). From molecular patterns to morphogenesis: The lessons from *Drosophila*. in *The Nobel Prize 1995* (ed T. Frangmyr). Norstedts Tryckeri AB, Stockholm, 296-314.
- Wieschaus, E. (1996). Embryonic transcription and the control of developmental pathways. *Genetics* 142:5-10.
- Schejter, E.D. and E. Wieschaus (1993). Functional elements of the cytoskeleton in the early *Drosophila* embryo. *Annual Reviews of Cell Biology* 9:67-99.
- Costa, M., D. Sweeton and E. Wieschaus (1992). Gastrulation in *Drosophila*: Cellular Mechanisms of Morphogenetic Movements. In: *The Development of Drosophila*, eds. M. Bate and A. Martinez-Arias. Cold Spring Harbor Laboratory Press.
- Schejter, E. D., L. S. Rose, M. A. Postner and E. Wieschaus (1992). The role of the zygotic genome in the restructuring of the actin cytoskeleton at the cycle 14 transition during *Drosophila* embryogenesis. *Cold Spring Harbor Symposium LVII*.
- Wieschaus, E., D. Sweeton and M. Costa (1991). Convergence and extension during germband elongation in *Drosophila* embryos. In: *Gastrulation: Movements, Patterns and Molecules*, eds. R. Keller, W. Clark and F. Griffin. Plenum Press, p. 213-223.
- Wieschaus, E., S. Parks, M. Costa and D. Sweeton (1991). Genes controlling cell shape changes during gastrulation in *Drosophila melanogaster*. Symposium for the Society of Developmental Biology, 49, ed. John Gerhardt). New York, Academic Press.
- Coulter, D. and E. Wieschaus (1986). Segmentation genes and the distributions of transcripts. *Nature* 321:472-474.

- Wieschaus, E. and C. Nüsslein-Volhard (1986). Looking at embryos. In: *Drosophila, A Practical Approach*. D. B. Roberts, ed., Oxford U. Press. pp. 199-228.
- Gergen, J. P., D. Coulter and E. Wieschaus (1986). Segmental pattern and blastoderm cell identities. In: "*Gametogenesis and the Early Embryo*" (Symposium of the Society for Developmental Biology, J. Gall and S. Subtelny, eds.). Alan R. Liss, New York. 44:195-220.
- Mohler, J. and E. Wieschaus (1985). Bicaudal mutations of *Drosophila melanogaster*: alteration of blastoderm cell fate. *Cold Spring Harbor Sym.* 50:105-111.
- Nüsslein-Volhard, C., E. Wieschaus and G. Jurgens (1982). Segmentierung bei drosophila, ein genetische analyse. Segmentation in drosophila, a genetic analysis. *Verh. Dtsch. Zool. Ges.* 91-104.
- Wieschaus, E. (1979). fs(1)K10 a female sterile mutation altering the pattern of both the egg coverings and the resultant embryos in *Drosophila*. In: *Cell Lineage, Stem Cells and Cell Determination*. Le Douarin, ed., Elsevier Press. pp. 291-302.
- Wieschaus, E. (1978). The use of mosaics to study oogenesis in *Drosophila melanogaster* . In: *The Clonal Basis of Development*. S. Subtelny and I. M. Sussex, eds., Academic Press, New York.
- Nothiger, R., T. Schupbach, J. Szabad and E. Wieschaus (1978). Stem cells and tissue homeostasis in insect development. In: *Stem Cells and Tissue Homeostasis* (British Society for Cell Biology Symposium 2) Lord, Potten, Cole, eds., Cambridge University Press, Cambridge-London-New York-Melbourne.
- Wieschaus, E. (1978). Cell lineage relationships in the *Drosophila* embryo. In: *Results and Problems in Cell Differentiation*, Vol. 9, W. J. Gehring, ed., Springer-Verlag. pp. 97-118.