Curriculum Vitae

Name: Oliver Wessely, PhD

Affiliation: Louisiana State University Health Sciences Center
Departments of Cell Biology & Anatomy and Genetics
MEB, Room 6E5
1901 Perdido Street
New Orleans, LA 70112, U.S.A.
Tel. (504) 568-2028

e-mail: owesse@lsuhsc.edu

Education:

1987 - 1992	Studies of molecular genetics at the Faculty for Formal and Natural Sciences at the University of Vienna, Austria
1991 - 1992	Diploma-thesis with Prof. Dr. H. Beug at the IMP, Vienna, Austria ("Ectopic expression of the human GM-CSF receptor α-chain in avian hematopoietic bone marrow cells")
1992 - July 1996	Graduate student at the laboratory of Prof. Dr. H. Beug at the IMP, Vienna, Austria ("The regulation of proliferation and differentiation in avian erythropoiesis")
Jan. 31st 1997	Defense of the PhD thesis at the University of Vienna

Positions held:

July – Dec. 1996	Visiting scientist at the laboratory of Prof. G. Schütz, DKFZ, Heidelberg, Germany
1997 - 2003	Postdoctoral fellow in laboratory of E. M. De Robertis at UCLA, Los Angeles, CA
Nov. 2003- current	Assistant Professor in the Departments of Cell Biology & Anatomy and the Genetics at LSU Health Sciences Center, New Orleans, LA

Awards:

- "Fond zur Förderung wissenschaftlicher Forschung" (FWF) long-term fellowship, Austria

- "Human Frontier Science Program Organization" (HFSPO) long-term fellowship, Strasbourg, France

Society Memberships:

- Society of Developmental Biology
- American Association for the Advancement of Science
- American Society of Nephrology
- New Orleans Developmental Biology Consortium

Grants Funded:

Polycystic Kidney Disease Foundation, Grant #103a2r, Principal Investigator, "Identification of Downstream Targets of the Polycystic Kidney Disease Gene *Bicaudal-C*"; 2005-2006

List of Publications:

1. Steinlein P., **Wessely O**., Meyer S., Deiner E.M., Hayman M.J. and Beug H. (1995). Primary, self renewing erythroid progenitors develop through activation of both tyrosine kinase and steroid receptors. Current Biology **5**, 191-204.

2. Beug H., Schroeder C., **Wessely O.**, Meyer S., Ischenko I.D., Deiner E.M. and Hayman M.J. (1995).Tyrosine kinase oncogenes transform erythroid progenitors by functionally replacing endogenous receptor kinase function. Cell Growth Differ **6**, 999-1008

3. Mellitzer G., **Wessely O.**, Decker T., Hayman M.J. and Beug H. (1996). Activation of Stat5b in erythroid progenitors correlates with the ability of ErbB to induce sustained cell proliferation. Proc.Natl.Acad.Sci. U.S.A. **93**, 9600-9605

4. **Wessely, O.** (1996) The regulation of proliferation and differentiation in avian erythropoiesis. pHD thesis submitted at the university of Viennna

5. Beug, H. Bauer, A, Dolznig, H., von Lindern, M., Lobmayer, L., Mellitzer, G., Steinlein, P., **Wessely, O.** and Müllner, E. (1996). Avian erythropoiesis and erythroleukemia: Towards understanding the role of biomolecules involved. Biochimica et Biophysica Acta, **1288**, M35-47

6. **Wessely O.**, Deiner, E., Beug H. and von Lindern, M. (1997) The glucocorticoid receptor is a key regulator of the decision between self renewal and differentiation in erythroid progenitors. EMBO J. **16**, 267-280

7. **Wessely, O.**, Mellitzer, G., von Lindern, M., Levitzky, A., Gazit, A., Ischenko, I., Hayman, M.J. and Beug, H. (1997). Distinct roles of the receptor tyrosine kinases c-ErbB and c-Kit in regulating the balance between erythroid cell proliferation and differentiation.

Cell Growth Differ **8** (5): 481-493

8. Tran Quang C., **Wessely O.**, Pironin M., Beug H., and Ghysdael J. (1997). Cooperation of Spi-1/PU.1 with an activated erythropoietin receptor inhibits apoptosis and Epo-dependent differentiation in primary erythroblasts and induces their Kit ligand-dependent proliferation. EMBO J., **16** (18): 5639-5653

9. von Lindern M., Boer L., **Wessely O.**, Parker M. and Beug H. (1998) The AF-2 domain of the estrogen receptor is required to inhibit differentiation of avian erythroid progenitor cells. Mol. Endocrinology, **12** (2): 263-277

10. De Robertis E.M., Kim S., Leyns L., Piccolo S., Bachiler D., Agius E., Belo A.J., Yamamoto A., Hainski-Brousseau A., Brizuela B.J., **Wessely O.**, Lu B. and Bouwmeester T. (1997) Paterning by Genes Expressed in Spemann's Organizer. Cold Spring Harbor Symposia on Quantitative Biology, **62**: 169-175

11. **Wessely O.**, Deiner E.M., Lim K.C., Mellitzer G., Steinlein P. and Beug H. (1998) Mammalian GM-CSF receptor expressed in primary avian hematopoietic progenitors: Lineage-specific regulation of proliferation and differentiation. J.Biol.Chem., **141**: 1041-1051

12. Reichardt H.M., Kaestner K.H, Tuckermann J., Kretz O., **Wessely O.**, Bock R., Gass P., Schmid W., Herrlich P., Angel P. and Schuetz G. (1998) DNA Binding of the Glucocorticoid Receptor Is Not Essential for Survival. Cell, **93:** 531-541

13. Reichardt H.M., Kaestner K.H., **Wessely O.**, Gass P., Schmid W., Schuetz G. (1998) Analysis of glucocorticoid signalling by gene targeting. J Steroid Biochem Mol Biol, **65**: 111-115

14. **Wessely O**., Bauer A., Tran Quang C., Deiner E.M., von Lindern M., Mellitzer G., Steinlein P., Ghysdael J.and Beug H. (1999) A novel way to induce erythroid progenitor self renewal: cooperation of c-Kit with the erythropoietin receptor. Biol Chem, **380**: 187-202

15. Bauer A., Tronche F., **Wessely O.**, Kellendonk C., Reichardt H.M, Steinlein P., Schütz G. and Beug H. (1999) The Glucocorticoid Receptor Is Required for Stress Erythropoiesis. Genes & Development **13(22)**: 2996-3002

16. Agius E., Oegelschlaeger M., **Wessely O.** and De Robertis E.M (2000) Endodermal Nodal-related signals and mesoderm induction in *Xenopus*. Development **127(6)**, 1173-1183

17. **Wessely O.** and De Robertis E.M (2000) The *Xenopus* homologue of Bicaudal-C is a localized maternal RNA that functions in endoderm differentiation. Development, **127(10)**; 2053-2062.

18. De Robertis, E.M., Larraín, J., Oelgeschläger, M. and **Wessely, O.** (2000). The Establishment of Spemann's Organizer and Patterning of the Vertebrate Embryo. Nature Reviews Genetics, **1**; 171-181.

19. De Robertis E.M., **Wessely O.** Oelgeschlager M., Brizuela B., Pera E., Larraín J, Abreu J.and Bachiller D. (2001) Molecular mechanisms of cell-cell signalling by the Spemann's organizer. Int. J. Dev. Biol., **45**; 189-197.

20. Brizuela B., **Wessely O.** and De Robertis E.M (2001) Overexpression of the *Xenopus* Claudin tight junction protein causes randomization of the left-right body axis. Dev. Biol., **230 (2)**; 217-229.

21**.** **Wessely O.**, Tran U., Zakin L. and De Robertis E.M. (2001) Identification and Expression of the Mouse Homologue of Bicaudal-C. Mechanisms of Development, **101 (1-2)**; 267-270.

22. **Wessely O.**, Agius E., Oelgeschläger M., Pera E.M., De Robertis E.M. (2001) Neural Induction in the Absence of Mesoderm: β-Catenin Dependent Expression of Secreted BMP Antagonists at the Blastula Stage in *Xenopus*. Dev. Biol., **234 (1)**;161-173

23. Heasman J., **Wessely O.**, Langland R., Craig E.J., Kessler D.S. (2001) Vegetal Localization of Maternal mRNAs is Disrupted by VegT Depletion. Dev. Biol., **240 (2)**, 377-386

24. Pera E.M., **Wessely O.**, Li, S.Y.., De Robertis E.M. (2001) Neural And Head Induction By Insulin-Like Growth Factors Signals. Dev. Cell, **1(5)**: 655-665.

25. **Wessely O.** and De Robertis E.M. (2002) Neural Plate Patterning by Secreted Signals. Neuron, **33 (4)**, 489-491

26. Pera E.M, Kim J.I., Martinez S.L., Brechner M., Li S.Y., **Wessely O.**, and De Robertis E.M. (2002) *Isthmin* Is a Novel Secreted Protein Expressed as Part of the *Fgf-8* Synexpression Group in the *Xenopus* Midbrain-Hindbrain Organizer. Mechanisms of Development, **116**, 169-172.

27. Pera E.M., Martinez S.L. Flanagan J., Brechner M., **Wessely O.**, and De Robertis E.M. (2003) *Darmin* is a Novel Secreted Protein Expressed During Endoderm Development in *Xenopus*. Gene Expression Patterns **3**, 147-152.

28. **Wessely O.** and De Robertis E.M. (2003) The Molecular Nature of Spemann's Organizer. in The Vertebrate Organizer (ed. Grunz H.)

29. Kuroda H., **Wessely O.** and De Robertis E.M. (2004) The Preorganizer Center Mediates Neural Induction in Ectoderm via β-Catenin, Chordin and Noggin signals. PLOS Biology **2**, 0623-0634

30. **Wessely O.**, Kim J. I., Geissert D., Tran U. and De Robertis E. M. (2004) Analysis of Spemann Organizer Formation in *Xenopus* Embryos by cDNA Macroarrays. Dev. Biol. **269**, 552-566

31. **Wessely O.,** Kim J. I., Tran U., Fuentealba L., De Robertis E.M. (2005). xBtg-x Regulates Wnt/β-Catenin Signaling During Early *Xenopus* Development. Dev. Biol. **in press**.

32. Pera E.M., Hou S., Strate I., **Wessely O**., De Robertis E.M. (2005). Exploration of the extracellular space by a large-scale secretion screen in the early *Xenopus* embryo. Manuscript submitted.