

## Publikationen Prof. Dr. Michael Kühl, Universität Ulm

### Überblick

91 Originalarbeiten  
27 Übersichtsarbeiten  
12 Buchkapitel  
1 Herausgeber  
3 Lehrbücher (Biochemie, Entwicklungsbiologie, Stammzellbiologie)  
2 Ratgeber  
2 Lehrbuchkapitel  
1 Lehrbuchübersetzung

### Originalarbeiten

91. Flach H\*, Brendler C\*, Schöpf M, Xu L, Schneider J, Dewald K, Dietmann P, **Kühl M**, Kühl SJ (2024) Comparing the effects of three neonicotinoids on embryogenesis of the South African clawed frog *Xenopus laevis*, **Curr. Res. Toxicol.**, \* equal contribution, 6:100169
90. Kerner M, Flach H, Dietmann P, **Kühl M**, Kühl SJ (2023) The impact of the insecticide acetamiprid on the embryogenesis of the aquatic model organism *Xenopus laevis*, **Environ. Toxicol. Pharmacol.** 103:104278
89. Flach H, Dietmann P, Liess M, **Kühl M**, Kühl SJ (2023) Glyphosate without Co-formulants affects embryonic development in the south african clawed frog *Xenopus laevis*, **Ecotoxicol. Environ. Saf.** 260:115080
88. Flach H, Geiß K, Lohse KA, Feickert M, Dietmann P, Pfeffer S, **Kühl M**, Kühl SJ (2023) The neonicotinoid thiacloprid leads to multiple defects during early embryogenesis of the South African clawed frog (*Xenopus laevis*), **Food Chem. Toxicol.** 176:113761
87. Weidner FM, Schwab JD, Wölk S, Rupprecht F, Ikonomi, N, Werle SD, Hoffmann S, **Kühl M**, Kestler HA (2023) Leveraging quantum computing for dynamic analyses of logical networks in systems biology. **Patterns** 4, 100705. doi: 10.1016/j.patter.2023.100705.
86. Dieterle K, Scheffold H, **Kühl M**, Kühl SJ (2023) Umweltwissen und Umweltbewusstsein von Studierenden der Generation Z: eine Online-Umfrage an der Universität Ulm, **Z. Evid. Fortbild. Qual. Gesundh. wesen**, Schwerpunktreihe "Planetary Health", 179:80-90
85. Müller L, **Kühl M**, Kühl SJ (2023) Klimawandel und Gesundheit: Veränderung in Umweltwissen und -bewusstsein von Studierenden durch die Implementierung eines Wahl-Pflichtfaches an der Medizinischen Fakultät Ulm? **GMS J. Med. Educ.** 40(3):Doc32
84. Straßer P, **Kühl M**, Kühl SJ (2023) Ein Hidden Curriculum für Umweltthemen in der medizinischen Ausbildung: Auswirkungen auf Umweltwissen und Umweltbewusstsein der Studierenden ? **GMS J. Med. Educ.** 40(3):Doc27
83. Müller L, Schneider A, **Kühl M**, Kühl SJ (2023) Herausforderung Klimawandel: Transfer von Wissenschaft in die Gesellschaft durch einen Online Workshop **Z. Evid. Fortbild. Qual. Gesundh. wesen**, Schwerpunktreihe "Planetary Health", 176:82-89

82. Straßer P, Nikendei C, Bugaj TJ, **Kühl M**, Kühl SJ (2022) Environmental issues hidden in medical education: What are the effects on students' environmental awareness and knowledge? **Z. Evid. Fortbild. Qual. Gesundh. wesen**, Schwerpunktreihe "Planetary Health", 174:97-102
81. Gärtner C, Meßmer A, Dietmann P, **Kühl M**, Kühl SJ (2022) Functions of block of proliferation 1 during anterior development in *Xenopus laevis*, **Plos One**, 17:e0273597
80. Dahmen L, Schneider A, Keis O, Straßer P, **Kühl M**, Kühl SJ (2022) From the inverted classroom to the online lecture hall: effects on students' satisfaction and exam results, **Biochem. Mol. Biol. Educ.**, 50:483-493
79. Schneider A, Messerer DAC, Kühn V, Horneffer A, Bugaj TJ, Nikendei C, **Kühl M**, Kühl SJ (2022) Randomised controlled monocentric trial to compare the impact of using professional actors or peers for communication training in a competency-based inverted biochemistry classroom in preclinical medical education, **BMJ Open**, 12:e050823
78. Werle SD, Ikonomi N, Schwab JD, Kraus JM, Weidner FM, Rudolph KL, Pfister AS, Schuler R, **Kühl M**, Kestler HA (2022) Identification of dynamic driver sets controlling phenotypical landscapes, **Comput. Struct. Biotechnol. J.**, 20:1603-1617
77. Griegel S, **Kühl M**, Schneider A, Kühl SJ (2022) Basics zur medizinische Dissertation: Analyse eines Kursangebots für Promovierende der Medizin, **GMS J. Med. Educ.** 39:Doc26
76. Schreiner C, Kernl B, Dietmann P, Rieger R, **Kühl M**, Kühl SJ (2022) The ribosomal protein L5 functions during *Xenopus* anterior development through apoptotic pathways. **Front. Cell Dev. Biol.** 10:777121
75. Flach H, Lenz A, Pfeffer S, **Kühl M**, Kühl SJ (2022) Impact of glyphosate-based herbicide on early embryonic development of the amphibian *Xenopus laevis*, **Aquat. Toxicol.** 244:106081
74. Orzechowski M, Schochow M, **Kühl M**, Steger F (2021) Content und method of information for participants in clinical studies with induced pluripotent stem cells (iPSCs), **Front Cell Dev Biol**, 9:627816
73. Mann, N, Mzoughi S, Schneider R, Kühl SJ, Schanze D, Klämpf V, Lovric S, Mao Y, Shi S, Tan W, **Kühl M**, Onuchic-Whitford AC, Treimer E, Kitzler TM, Kause M, Schuman S, Nakayama M, Buerger F, Shril S, van der Ven AT, Mamundar AJ, Holton KM, Kolb A, Braun DA, Rao J, Jobst-Schwan T, Mildnerberger E, Lenner T, Kuechler A, Wieczorek D, Gross O, Ermisch-Omrani B, Werberger A, Skalej M, Janecke AR, Soliman NA, Mane S, Lifton RP, Kadlec J, Guccione A, Schmeisser MJ, Zenker M, Hildebrandt F (2021) Mutations in PRDM15 are a novel cause of Galloway-Mowat syndrome, **J. Am. Soc. Nephrol.** 32, 580-596
72. Flach H, Basten T, Schreiner C, Dietmann P, Greco S, Nies L, Roßmanith N, Walter S, **Kühl M**, Kühl SJ (2021) Retinol binding protein 1 affects *Xenopus* anterior neural development via all-trans retinoic acid signalling, **Dev. Dynam.**, 250:1096-1112
71. Orzechowski M, Schochow M, **Kühl M**, Steger F (2020) Donor information in research and drug evaluation with induced pluripotent stem cells (iPSCs). **Stem Cell Res Ther.** 11:126
70. Burczyk MS, Burkhalter MD, Tena TC, Grisanti LA, Kauk M, Matysik S, Donow C, Kustermann M, Rothe M, Cui Y, Raad F, Laue S, Moretti A, Zimmermann WH, Wess J, **Kühl**

**M**, Hoffmann C, Tilley DG, Philipp M (2019) Muscarinic receptors promote pacemaker fate at the expense of secondary conduction system tissue in zebrafish, **JCI Insight**. 17;4(20)

69. Schneider A, **Kühl M**, Kühl SJ (2019) Utilizing research findings in medical education: The testing effect within a flipped/inverted biochemistry classroom, **Med Teach.** 7:1-7.

68. Kühl SJ, Schneider A, Kestler HA, Toberer M, **Kühl M**, Fischer MR (2019) Investigating the self-study phase of an inverted biochemistry classroom - collaborative dyadic learning makes the difference, **BMC Med. Educ.**, 19:64

67. Guo Y, Dorn T, Kühl SJ, Linnemann A, Rothe M, Pfister AS, Vainio S, Laugwitz KL, Moretti A, **Kühl M** (2019) The wnt inhibitor Dkk1 is required for maintaining the normal cardiac differentiation program in *Xenopus laevis*, **Dev. Biol.**, 449, 1-13

66. Groß A\*, Kracher B\*, Kraus JM, Kühlwein SD, Pfister AS, Wiese S, Luckert K, Pötz O, Joos T, Van Daele D, De Raedt L<sup>+</sup>, **Kühl M<sup>+</sup>**, Kestler HA<sup>+</sup> (2019) Representing dynamic biological networks with multi-scale probabilistic models, **Commun. Biol.** 17:21 \* equal contribution, <sup>+</sup>corresponding authors

65. Siegle L, Schwab JD, Kühlwein SD, Lausser L, Tümpel S, Pfister AS, **Kühl M<sup>+</sup>**, Kestler HA<sup>+</sup> (2018) A Boolean network of the crosstalk between IGF and Wnt signaling in aging satellite cells, **Plos One**, 13:e0195126, <sup>+</sup>corresponding authors

64. Seigfried FA, Dietmann P, **Kühl M**, Kühl SJ (2018) Expression of the adhesion G protein-coupled receptor A2 (adgra2) during *Xenopus laevis* development, **Gene Expression Patterns** 28, 54-61

63. Schwab JD, Siegle L, Kühlwein SD, **Kühl M**, Kestler HA (2017) Stability of signaling pathways during aging – A Boolean network approach. **Biology**, 18:6

62. Kühl SJ, Toberer M, Keis O, Tolks D, Fischer MR, **Kühl M** (2017) Concept and benefits of the Inverted Classroom method for a competency-based biochemistry course in the pre-clinical stage of a human medicine course of studies, **GMS J. Med. Educ.** 34

61. Sträng JE, Schuler R, **Kühl M<sup>+</sup>**, Kestler HA<sup>+</sup> (2017) Switch-like behavior enables Wnt11 concentration specific response during dorso-ventral axis formation in *Xenopus laevis*. **J. Theor. Biol.** 429, 82-94, <sup>+</sup>corresponding authors

60. Seigfried FA, Cizelsky W, Pfister A, Dietmann P, Walther P, **Kühl M**, Kühl SJ (2017) Frizzled 3 acts upstream of Alcam during embryonic eye development, **Dev. Biol.**, 426, 69-83

59. Hempel A, Kühl SJ, Rothe M, Tata PR, Sirbu IO, Vainio SJ, **Kühl M** (2017) The CapZ interacting protein Rcsd1 is required for cardiogenesis downstream of Wnt11a in *Xenopus laevis*, **Dev. Biol.**, 424, 28-39

58. Rothe M, Kanwal N, Dietmann P, Seigfried FA, Hempel A, Schütz D, Reim D, Engels R, Linnemann A, Schmeisser MJ, Bockmann J, **Kühl M**, Boeckers TM, Kühl SJ (2017) An EphA4/Sipa1l3/Wnt pathway regulates eye development and lens maturation. **Development**, 144, 321-333

57. Oswald F, Rodriguez P, Giaimo BD, Antonello ZA, Mira L, Mittler G, Thiel VN, Collins KJ, Tabaja N, Cizelsky W, Rothe M, Kühl SJ, **Kühl M**, Ferrante F, Hein K, Kovall RA, Dominguez M, Borggrefe T. (2016) A phosho-dependent mechanism involving NCoR and KMT2D controls a permissive chromatin state at Notch target genes. **Nucleic Acids Res** 44, 4701-4720.

56. Grieb M, Burkovski A, Sträng JE, Kraus JM, Groß A, Palm G, **Kühl M<sup>+</sup>**, Kestler HA<sup>+</sup> (2015) Predicting variabilities in cardiac gene expression with a Boolean network incorporating uncertainty. **PlosOne** 10, e0131832. <sup>+</sup>corresponding authors
55. Hein K, Mittler G, Cizelsky W, **Kühl M**, Ferrante F, Liefke R, Berger I, Just S, Sträng JE, Kestler HA, Oswald F, Borggrefe T (2015) Site-specific methylation of Notch1 controls the amplitude and duration of the Notch1 response, **Sci Signal**, 8, ra30
54. Pfister AS, Keil M, **Kühl M** (2015) The Wnt target genes Peter Pan defines a novel p53-independent nucleolar stress response pathway, **J. Biol. Chem.**, 10905-10918
53. Tao S, Tang D, Morita Y, Sperka T, Omrani O, Lechel A, Sakk V, Kraus J, Kestler HA, **Kühl M<sup>+</sup>**, Rudolph KL<sup>+</sup> (2015) Wnt activity and basal niche position sensitize intestinal stem and progenitor cells to DNA damage. **EMBO J**, 34, 624-640, <sup>+</sup>corresponding authors
52. Dorn T, Goedel A, Lam JT, Haas J, Tian Q, Herrmann F, Bundschu K, Dobreva G, Schiemann M, Dirsninger R, Guo Y, Kühl SJ, Sinnecker D, Lipp P, Laugwitz K, **Kühl M<sup>+</sup>**, Moretti A<sup>+</sup> (2015) Direct Nkx2-5 transcriptional repression of Isl1 controls cardiomyocyte subtype identity, **Stem Cells**, 33, 1113-1129, <sup>+</sup>corresponding authors,
51. Cizelsky W\*, Tata A\*, **Kühl M<sup>+</sup>**, Kühl SJ<sup>+</sup> (2014) The Wnt/JNK target gene *alcam* is required for embryonic kidney development, **Development**, 141, 2064-74, \*equal first authors, <sup>+</sup>corresponding authors
50. Guo Y\*, Kühl SJ\*, Pfister AS, Cizelsky W, Denk S, Beer-Molz K, **Kühl M** (2014) Comparative analysis reveals distinct and overlapping functions of Mef2c and Mef2d during cardiogenesis in *Xenopus laevis*, **Plos One**, 9(1):e87294, \* equal contribution
49. Wehner D, Cizelsky W, Vasudevaro MD, Ozhan H, Haase C, Kagermeier-Schenk, Röder A, Dorsky RI, Moro E, Argenton F, **Kühl M**, Weidinger G (2014) Wnt/β-Catenin signaling defines organizing centers that orchestrate growth and differentiation of the regenerating zebrafish caudal fin, **Cell Rep**, 6, 467-81
48. Schmeisser JM, Kühl SJ, Schön M, Beth NH, Weis TM, Grabrucker AM, **Kühl M**, Böckers T (2013) The Nedd4 binding protein 3 (N4BP3) is crucial for axonal and dendritic branching in developing neurons, **Neural Dev.**, 8, 18
47. Weidgang CE, Russel R, Tata PR, Kühl SJ, Illing A, Müller M, Lin Q, Brunner C, Böckers TM, Bauer K, Kartikasari AER, Guo Y, Radenz M, Bernemann C, Weiß M, Seufferlein T, Zinke M, Iacovino M, Kyba M, Schöler HR, **Kühl M**, Liebau S, Kleger A (2013) Tbx3 directs cell-fate decision towards mesendoderm, **Stem Cell Reports**, 1, 248-265
46. Özcan G, Sezgin E, Wehner D, Pfister AS, Kühl SJ, Kagermeier-Schenk B, **Kühl M**, Schwille P and Weidinger G (2013) Lypd6 enhances Wnt/β-catenin signaling by promoting Lrp6 phosphorylation in raft plasma membrane domains, **Dev. Cell**, 26, 331-45
45. Cizelsky W\*, Hempel A\*, Tao S, Metzig M, Hollemann T, **Kühl M**, Kühl SJ (2013) Sox4 and Sox11 function during *Xenopus laevis* eye development, **PlosONE**, 8(7):e69372, \*equal contribution
44. Herrmann F\*, Groß A\*, Zhou D, Kestler HA<sup>+</sup>, **Kühl M<sup>+</sup>** (2012) A boolean model of the cardiac regulatory network determining first and second heart field identity, **PlosONE**, 7, e46798, 1-10, \*equal contribution, <sup>+</sup>corresponding authors

43. Hopfensitz M, Müssel C, Wawra C, Maucher M, **Kühl M**, Neumann H, Kestler HA (2012) Multiscale binarization of gene expression data for reconstructing Boolean networks, **IEEE Trans Comput Biol Bioinform**, 9,487-98
42. Murugan S, Shan J, Kühl SJ, Tata A, Pietulä I, **Kühl M**, Vainio SJ (2012) WT1 and Sox11 regulate synergistically the promotor of Wnt4 gene that encodes a critical signal for nephrogenesis, **Exp. Cell Res.**, 318, 1134-45
41. Herrmann F\*, Bundschu K\*, Kühl SJ, **Kühl M** (2011) Tbx5 overexpression favours a first heart field lineage in murine embryonic stem cells and in *Xenopus laevis* embryos, **Dev. Dyn.**, 240, 2634-2645, \* both contributed equally
40. Tao S, **Kühl M**, Kühl SJ (2011) Expression of periostin during *Xenopus laevis* embryogenesis, **Dev. Genes Evol.**, 221, 247-254
39. Tecza A, Bugner V, **Kühl M**, Kühl SJ (2011) Pes1 and ppan function during *Xenopus laevis* pronephros development, **Biol. Cell**, 103, 483-498,
38. Bugner V, Aurhammer T, **Kühl M** (2011) Xenopus laevis insulin receptor substrate IRS-1 is important for eye development, **Dev. Dyn.**, 240, 17-15Brad
37. Guo Y, Christine KS, Conlon F, Gessert S, **Kühl M** (2011) Expression analysis of epb41l4a during *Xenopus laevis* embryogenesis, **Dev. Genes Evol.**, 221, 118-9
36. Maucher M\*, Kracher B\*, **Kühl M**, Kestler H (2011) Inferring Boolean network structure via correlation, **Bioinformatics**, 27, 1529-36, \* both contributed equally
35. Bugner V, Tecza A, Gessert S, **Kühl M** (2011) Peter Pan functions independent of its role in ribosome biogenesis during early eye and craniofacial cartilage development in *Xenopus laevis*, **Development**, 138, 2369-78
34. Gessert S, Schmeisser MJ, Tao S, Böckers TM, **Kühl M** (2011) The spatio-temporal expression of ProSAP/Shank family members and their interaction partner LAPSER1 during *Xenopus laevis* development, **Dev. Dyn.**, 240, 1528-36
33. Tata RP, Tata NR, **Kühl M**, Sirbu IO (2011) Identification of a novel epigenetic regulatory region within the pluripotency associated microRNA cluster, EEmiRC, **Nucleic Acids Res.**, 39, 3574-81
32. Gessert S, Bugner V, Tecza A, Pinker M, **Kühl M** (2010) FMR1/FXR1 and the miRNA pathway are required for eye and neural crest development, **Dev. Biol.**, 341, 222-35
31. Gessert S and **Kühl M** (2009) Comparative gene expression analysis and fate mapping studies suggest an early segregation of cardiogenic lineages in *Xenopus laevis*, **Dev. Biol.** 334, 395-408
30. Gessert S, Maurus D, Brade T, Walther P, Pandur P, **Kühl M** (2008) DM-GRASP/ALCAM/CD166 is required for cardiac morphogenesis and maintenance of cardiac identity in first heart field derived cells, **Dev. Biol.** 321, 150-61
29. Gessert S, Maurus D, **Kühl M** (2008) Repulsive guidance molecule A (RGM A) and its receptor Neogenin during neural and neural crest development of *Xenopus laevis*, **Biol. Cell**, 100, 659-73

28. Anton R, Kestler HA, **Kühl M** (2007)  $\beta$ -catenin signalling contributes to stemness and regulates differentiation in murine embryonic stem cells, **FEBS Letters** 581, 5247-5254,
27. Gessert S\*, Maurus D\*, Rössner A, **Kühl M** (2007) Pescadillo is required for *Xenopus laevis* eye and neural crest development, **Dev. Biol.** 310, 99-112, \* both contributed equally,
26. Brade T, Gessert S, **Kühl M**, Pandur P (2007) The amphibian second heart field: *Xenopus* islet-1 is required for cardiovascular development, **Dev. Biol.** 311, 297-310,
25. Wawra C, **Kühl M**, Kestler HA (2007) Extended analyses of the Wnt/beta-catenin pathway: robustness and oscillatory behavior, **FEBS Lett.** 581, 4043-8
24. Giamas G, Shoshiashvili L, Hirner H, Grithey A, Gessert S, **Kühl M**, Henne-Bruns D, Vorgias CE, Knippschild U (2007) Phosphorylation of CKI $\delta$  by PKA, Akt, CLK2 and PKC: Identification of Ser370 as the major phosphorylation site targeted by PKA in vitro and in vivo, **Biochem. J.** 406, 389-398
23. Cus R, Maurus D, **Kühl M** (2006) Cloning and developmental expression of WSTF during *Xenopus laevis* embryogenesis, **Gen Expr. Patt** 6, 340-346
22. Maurus D, Heligon C, Bürger-Schwärzler A, Brändli A, **Kühl M** (2005) Noncanonical Wnt-4 signaling and EAF2 are required for eye development in *Xenopus laevis*, **EMBO J.** 24, 1181-1181
21. Koyanagi M, Haendeler J, Badorff C, Brandes RP, Hoffmann J, Pandur P, Zeiher A, **Kühl M**, Dimmeler S (2005) Non-canonical Wnt signaling enhances differentiation of human circulating progenitor cells to cardiomyogenic cells, **J. Biol. Chem.** 290, 16838-16842
20. Sheldahl LC, Slusarski D, Pandur P, Miller J, **Kühl M**, Moon RT (2003) Dishevelled activates Ca $^{2+}$  flux, PKC and CamKII signaling in vertebrate embryos, **J. Cell Biol.** 161, 769-777
19. Schwarz-Romond T, Asbrand C, Bakkers J, **Kühl M**, Schaeffer HJ, Huelsken J, Behrens J, Hammerschmidt M, Birchmeier W (2002) The ankyrin repeat protein Diversin recruits Casein kinase I epsilon to the beta-catenin degradation complex and acts in both canonical Wnt and non-canonical Wnt/JNK signaling, **Genes Dev.** 15, 2073-84
18. Pandur P, Läsche M, Eisenberg L, **Kühl M** (2002) Wnt-11 stimulation of a non-canonical Wnt-pathway is required for cardiogenesis, **Nature** 418, 636-641
17. Hitz MP, Pandur P, Brand T, **Kühl M** (2002) Cardiac specific expression of *Xenopus* Popeye-1 (Pop-1), **Mech. Dev.** 115, 123-126
16. Martin B, Schneider R, Janetzky S, Waibler Z, Pandur P, **Kühl M**, Behrens J, von der Mark K, Starzinski-Powitz A, Wixler V (2002) The LIM-only protein FHL2 interacts with  $\beta$ -catenin and promotes differentiation of mouse myoblasts, **J. Cell Biol.** 159, 113-122
15. Pukrop T, Gradi D, Henningfeld K, Knöchel W, Wedlich D, **Kühl M** (2001) Identification of two regulatory elements within the HMG-box transcription factor XTCF-4, **J. Biol. Chem.** 276, 8968-8978
14. Semenov M, Tamai K, Brott BK, **Kühl M**, Sokol S, He X (2001) Head inducer dickkopf-1 is a ligand for Wnt co-receptor LRP-6, **Curr. Biol.** 11, 951-961

13. **Kühl M**, Geis K, Sheldahl LC, Pukrop T, Moon RT, Wedlich D (2001) Antagonistic regulation of convergent extension movements by Wnt/β-catenin and Wnt/Ca<sup>2+</sup> signalling. **Mech. Dev.** 106, 61-76
12. Etard C, Wedlich D, Bauer A, Huber O, **Kühl M** (2000) Expression of Xenopus homologs of the β-catenin binding protein Pontin52, **Mech. Dev.** 94, 219-222
11. **Kühl M**, Sheldahl L, Malbon CC, Moon RT (2000) Calmodulin-dependent kinase II is stimulated by Wnt and Frizzled homologs and promotes ventral cell fates in Xenopus, **J. Biol. Chem.** 275, 12701-12711
10. König A, Grasl D, **Kühl M**, Wedlich D (2000) The HMG box transcription factor XTCF4 demarcates the forebrain-midbrain boundary. **Mech. Dev.** 93, 211-214
9. Grasl D\*, **Kühl M\***, Wedlich D (1999) The Wnt/Wg signal transducer β-catenin controls fibronectin expression, **Mol. Cell Biol.** 19: 5576-5587,\* both contributed equally
8. Geis G, Aberle H, **Kühl M**, Kemler R, Wedlich D (1998) Expression of murine p120cas1B in Xenopus embryos effects head differentiation but not axis formation. **Genes, Development and Evolution** 207, 471-481
7. Behrens J, Jerchow B, Würtele, M, Grimm J, Asbrand C, Wirtz R, **Kühl M**, Wedlich D, Birchmeier W (1998) Functional interaction of an axin homolog, conductin, with β-catenin, APC, and GSK3β. **Science** 280, 596-599
6. Mayr T, Deutsch U, **Kühl M**, Drexler H, Lottspeich F, Deutzmann R, Wedlich D, Risau W (1997) Fritz: A secreted frizzled related protein that inhibits Wnt activity. **Mech. Dev.** 63, 109-125
5. Behrens J, von Kries JP, **Kühl M**, Bruhn L, Grosschedl R, Wedlich D, Birchmeier W (1996) Functional interaction of β-catenin and the architectural transcription factor LEF-1. **Nature** 382, 638-642
4. **Kühl M**, Finnemann S, Binder O, Wedlich D (1996) Dominant negative expression of a cytoplasmically deleted mutant of XB/U-cadherin disturbs mesoderm migration during gastrulation in Xenopus laevis. **Mech. Dev.** 54, 76-88
3. Finnemann S, **Kühl M**, Otto G, Wedlich D (1995) Cadherin transfection of Xenopus XTC cells downregulates expression of substrate adhesion molecules. **Mol. Cell Biol.** 15, 5082-509
2. **Kühl M**, Wedlich D (1995) XB/U-cadherin mRNA contains cytoplasmic polyadenylation elements in its 3'UTR and is polyadenylated during oocyte maturation. **Biochim. Biophys. Acta** 1262, 95-98
1. Müller AH\*, **Kühl M\***, Finnemann S, Schneider S, van der Poel S, Hausen P, Wedlich D (1994) Xenopus cadherins: The maternal pool comprises distinguishable members of the family. **Mech. Dev.** 47, 213-223, \* both contributed equally

## Übersichtsarbeiten

27. Kühl SJ, **Kühl M** (2022) Der anthropogene Klimawandel - Die naturwissenschaftlichen Grundlagen. **Ärztliche Psychotherapie**, 17(1):5-9
26. Nikendei C, Bugaj TJ, Nikendei F, Kühl SJ, **Kühl M** (2020) Klimawandel: Ursachen, Folgen, Lösungsansätze und Implikationen für das Gesundheitswesen. **Z Evid Fortbild Qual Gesundhwesen**, 156-157, 59-67
25. Schwab KD, Kühlwein SD, Ikonomi N, **Kühl M**, Kestler HA (2020) Concepts in Boolean network modelling: What do they all mean? **Comput Struct Biotechnol J** 18, 571-582
24. Pfister AS, **Kühl M** (2018) Of Wnts and ribosomes. **Prog Mol Biol and Transl Sci**, 153, 131-155
23. Hempel A, **Kühl M** (2016) A matter of the heart: The african clawed frog Xenopus as a model for studying vertebrate cardiogenesis and congenital heart defects, **J Cardiovasc Dev Dis**, 3, 21
22. Kühl SJ, **Kühl M** (2013) The role of Wnt/β-catenin signaling in stem cells, **BBA general subjects**, 1820, 2297-306
21. Pandur P, Sirbu IO, Kühl SJ, Philipp M, **Kühl M** (2013) Islet1 expressing cardiac progenitor cells: A comparison across species, **Dev. Genes Evol.**, 223, 117-29
20. Kühl SJ, **Kühl M** (2012) Nobelpreise 2012, Physiologie oder Medizin, **Naturwissenschaftliche Rundschau**, 12, 5-7
19. Kühl SJ, **Kühl M** (2011) Improving cardiac function after injury: are we a step closer? **BioEssays**, 33, 669-673
18. Kestler HA, **Kühl M** (2011) Generating a Wnt switch: It's all about the right dosage, **J Cell Biol**, 193, 431-3
17. Gessert S, **Kühl M** (2010) The multiple phases and faces of Wnt signaling during cardiac differentiation and development, **Circ. Res.**, 107, 186-99
16. Rao TP, **Kühl M** (2010) An updated overview of Wnt signaling pathways: a prelude for more, **Circ. Res.**, 106, 1798-806
15. Kestler HA, Wawra C, Kracher B, **Kühl M** (2008) Network modeling of signal transduction: establishing of a global view, **BioEssays**, 30, 1110-25
14. Kestler HA, **Kühl M** (2008) From individual Wnt pathways towards a Wnt signalling network, **Phil. Trans. R. Soc. B**, 363, 1333-47
13. Anton R, **Kühl M**, Pandur P (2007) A molecular signature of the master heart cell, **BioEssays**, 29, 422-26
12. Brade T, Männer J, **Kühl M** (2006) Wnt signaling during cardiac development and remodelling. **Cardiovasc. Res.**, 72, 198-209
11. Quaiser T, Anton R, **Kühl M** (2006) Kinases and G proteins join the Wnt receptor complex. **BioEssays**, 128, 339-343

10. Maurus D, **Kühl M** (2004) Getting an embryo into shape. **BioEssays**, 26, 1272-1275
9. **Kühl M** (2004) The Wnt/calcium pathway: biochemical mediators, tools and future requirements. **Front. Biosci.** 9, 967-974
8. **Kühl M** (2002) Non-canonical Wnt signaling in Xenopus: regulation of axis formation and gastrulation. **Sem. Cell Dev. Biol.**, 13, 243-249
7. Pandur P, Maurus D, **Kühl M** (2002) Increasingly complex: New players enter the Wnt signaling network. **BioEssays** 24, 881-885
6. Pandur P, **Kühl M** (2001) An arrow for wingless to take-off, **BioEssays** 23, 207-210
5. Waltenberger J, Jehle PM, Engele J, **Kühl M**, Wedlich D, Reinshagen M (2001) Wachstumsfaktormodulation als therapeutisches Prinzip, **Deutsches Ärzteblatt** 98, 3452-3456
4. **Kühl M**, Sheldahl L, Park M, Miller JR, Moon, RT (2000), The Wnt/Ca<sup>++</sup> pathway: A new vertebrate Wnt signalling pathway takes shape, **Trends Genet.** 16, 279-283
3. Grasl D, **Kühl M**, Wedlich D (1999) Keeping a close eye on Wnt signaling in Xenopus development, **Mech. Dev.**, 86, 3-15
2. **Kühl M**, Wedlich D (1997) Wnt signalling goes nuclear. **BioEssays** 19, 101-104
1. **Kühl M**, Wedlich D (1996) Xenopus Cadherins: Sorting out types and functions in embryogenesis. **Developmental Dynamics** 207, 121-134

## Buchkapitel

12. Hoppler S, **Kühl M** (2021) Wnt signaling in tissue differentiation and morphogenesis. In: Fainsod A, Moody S (eds), *Xenopus*, from basic biology to disease models in the genomic era. CRC Press, in press
11. **Kühl M**, Kracher B, Groß A, Kestler HA (2014) Mathematical Models of Wnt signaling pathways, In: Hoppler S and Moon RT (eds), *Wnt Signaling in Development and Disease: Molecular Mechanisms and Biological Functions*. John Wiley & Sons, Ltd., Hoboken, New Jersey
10. Hoppler S, Mazotta S, **Kühl M** (2014) Wnt signaling in heart development, In: Hoppler S and Moon RT (eds), *Wnt Signaling in Development and Disease: Molecular Mechanisms and Biological Functions*. John Wiley & Sons, Ltd., Hoboken, New Jersey
9. Kühl S, **Kühl M** (2014) Introduction to β-catenin independent Wnt signaling pathways, In: Hoppler S and Moon RT (eds), *Wnt Signaling in Development and Disease: Molecular Mechanisms and Biological Functions*. John Wiley & Sons, Ltd., Hoboken, New Jersey
8. **Kühl M**, Pandur P (2008) Dorsal axis duplication as a functional read-out for Wnt activity, Ed: Vincan E. Humana Press Inc., New Jersey, USA
7. **Kühl M**, Pandur P (2008) Measuring CamKII activity in Xenopus embryos as a read-out for non-canonical Wnt signaling, Ed: Vincan E. Humana Press Inc., New Jersey, USA

6. Kühl M, Moon RT (2006) How to assay non-canonical Wnt signaling: A critical analysis, in: Analysis of growth factor signaling in embryos, pp 29-35, Ed.: Whitman M, Sater AK. CRC press, Francis & Taylor, Boca Raton, FL, USA
5. Hollemann T, Chen Y, Sölder M, Kühl M, Pieler T (2003) Embryonic explants from Xenopus laevis as an assay system to study differentiation of multipotent precursor cells, in: Cell biology: A Laboratory handbook, 3rd Ed., Ed: J.E. Celis, Elsevier Science, San Diego, USA
4. Behrens J, Kühl M (2003) Wnt signal transduction pathways: An overview. In: Kühl M (Editor): Wnt signalling in development, Landes Bioscience, Georgetown (Texas, USA), pp 1-14
3. Pandur P, Kühl M (2003) Wnt signalling in heart development. In: Kühl M (Editor): Wnt signalling in development, Landes Bioscience, Georgetown (Texas, USA), pp 170-183
2. Kühl M, Walter M, Clement J, Friedle H, Wedlich D, Knöchel W (1999) DNA injection into Xenopus embryos as a tool to study spatial gene function, in "Handbook on Microinjection" Eds. J.C. Lacal, J. Feramisco und R. Perona. Chapman and Hall, Weinheim, pp. 223-232
1. Wedlich D, Kühl M (1999) Cell adhesion and signalling in early Xenopus development, in "Epithelial morphogenesis in development and disease". Eds. W. Birchmeier und C. Birchmeier, Harwood Publishers, Amsterdam, pp. 199-216

### **Lehrbücher, Lehrbuchbeiträge, Ratgeber**

9. Kühl SJ, Kühl M (2016) Die Abschlussarbeit in den Life Sciences: Ein Leitfaden für Studierende, UTB, Eugen Ulmer Verlag, Stuttgart
8. Brockmann D und Kühl M (2015) Erfolgreich promovieren in den Life Sciences, UTB, Eugen Ulmer Verlag, Stuttgart
7. Kühl M (2014) Reifung, Altern und Tod, in: Pape HC, Kurtz A, Silbernagl S (eds) Physiologie, Thieme Verlag Stuttgart
6. Kühl S und Kühl M (2012) Stammzellbiologie, UTB, Eugen Ulmer Verlag, Stuttgart
5. Kühl M und Gessert S (2010) Entwicklungsbiologie, UTB Basics, Eugen Ulmer Verlag, Stuttgart
4. Kühl M (2009) Altern und Tod, in Physiologie: Lehrbuch, Hrsg: Klinke, Pape, Kurtz, Silbernagel; Thieme Verlag Stuttgart
3. Kühl M (2003) Entwicklung und Altern, in: Lehrbuch Vorklinik (GK1), Hrsg: Unsicker, Schmidt, Fachhrsg: Birnbaumer, Kurtz, Schartl, Unsicker, Deutscher Ärzteverlag, C 575- 596
2. Linnemann M, Kühl M (2004) Biochemie für Mediziner, Springer Verlag Heidelberg, 7. Auflage (vorherige Auflagen: 2002, 1999, 1995, 1993, 1992, 1992)
1. Luduena RF, German translation by Kühl M (1997) Klinische Biochemie, 100 Fall orientierte Fragen mit Antworten, Vieweg Verlag, Wiesbaden